IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

n re application of:

Sorrells et al.

Appl. No. 09/550,644

Filed: April 16, 2000

For: Method and System for Down-

Converting an Electromagnetic Signal,

Transforms for Same, and Aperture

Relationships

Art Unit: 2681

Examiner: J. Gelin

Atty. Docket: 1744.0010009

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Information Disclosure Statement

Commissioner for Patents Washington, D.C. 20231

Sir:

Listed on accompanying Form PTO-1449 are documents that may be considered material to the examination of this application, in compliance with the duty of disclosure requirements of 37 C.F.R. §§ 1.56, 1.97 and 1.98.

Although hard copies of the documents are not provided (see item 6 on page 9 of this pleading), Applicants herewith provide two Compact Discs labeled "Sterne1B" and "Sterne2B" having stored thereon searchable electronic copies (in PDF format) of the documents listed on the PTO-1449. More specifically, the "Sterne1B" CD contains electronic copies of documents AA1-AR1, AA2-AR2, AA3-AR3, AA4-AR4, AA5-AR5, AA6-AR6, AA7-AR7, AA8-AR8, AA9-AR9, AA10-AR10, AA11-AR11, AA12-AR12, AA13-AL13, AN13-AR13, AA14-AI14, AN14-AR14, AA15-AI15, AN15-AR15, AA16-AI16, AN16-AR16, AA17-AI17, AN17-AR17, AA18-AI18, AN18-AR18, AA19-AI19, AN19-AR19, AA20-AI20, AN20-AR20, AA21-AI21, AN21-AR21, AA22-AI22, AN22-



AR22, AA23-AI23, AN23-AR23, AA24-AI24, AN24-AR24, AA25-AI25, AN25-AR25, AA26-AI26, AN26-AR26, AA27-AI27, AN27-AR27, AA28-AI28, AN28-AR28, AA29-AI29, AN29-AR29, AA30-AI30, AN30-AR30, AA31-AI31, AN31-AR31, AA32-AI32, AN32-AR32, AA33-AI33, AN33-AR33, AA34-AI34, AN34-AR34, AA35-AI35, AN35-AR35, AA36-AI36, AN36-AR36, AA37-AI37, AN37-AR37, AA38-AI38, AN38-AR38, AA39-AI39 and AN39-AR39, and the "Sterne2B" CD contains electronic copies of documents AA40-AI40, AA41-AI41, AA42-AI42, AA43-AI43, AA44-AI44, AA45-AI45, AA46-AB46, AM10, AJ11-AM11, AJ12-AM12, AJ13-AL13, AP50-AR50 and AN51-AP51. The file names on the CDs correspond to the identifiers on the PTO-1449. It is noted that the CDs are being provided for the convenience of the Examiner.

Applicants have listed publication dates on the attached PTO-1449 based on information presently available to the undersigned. However, the listed publication dates should not be construed as an admission that the information was actually published on the date indicated.

Applicants reserve the right to establish the patentability of the claimed invention over any of the information provided herewith, and/or to prove that this information may not be prior art, and/or to prove that this information may not be enabling for the teachings purportedly offered.

Applicants provide the following comments regarding the documents:

Documents AD1, AL1, AO1, AC2, AF2, AG2, AI2, AC5, AG5, AB6, AF7, AI7, AB8, AF8, AG9, AK9, AO9, AO11, AA12, AE14, AN14, AB15, AE15, AH15, AO15, AF16, AD18, AG18, AB20, AC20, AQ20, AA22, AH22, AI23, AC24, AF26, AC30, AH31,

AC32, AA33, AR33, AH34, AP35 and AO48 were included with Petitions to Make Special pleadings in co-owned related U.S. Patent Nos. 6,061,551, 6,061,555, 6,049,706 and 6,091,940.

Documents AM4, AH6, AL7, AJ9, AM9, AC17, AA20, AG20, AG21, AA24, AD24, AG24, AI31, AA32, AG34, AD36 and AQ37 were cited in searches performed at Applicants' request by the European Patent Office's Searching Authority in the above-referenced co-owned related patents.

Documents AA6, AD6, AO6, AE7, AE8, AA11, AE11, AH11, AI12, AB13, AD13, AH13, AC14, AG14, AE16, AB17, AF19, AD20, AN21, AG23, AH27, AI27, AI28, AH29, AG30, AD37, AR40, AO49 and AQ49 were suggested or identified by potential licensees.

Documents AH5, AH17, AD21, AB34, AE34, AB36, AI36 and AI38 were cited by the Examiner in the above-referenced co-owned related patents.

Documents AR21, AN22, AO22, AP22, AQ22, AR22, AN23, AO23, AP23, AQ23, AR23, AN24, AO24, AP24, AQ24, AR24, AN25, AO25, AP25, AQ25, AR25, AN26, AO26, AP26, AQ26, AR26, AN27, AO27, AP27, AQ27, AR27, AN28, AO28, AP28, AQ28, AR28, AN29, AO29, AP29, AQ29, AR29, AN30, AO30, AP30, AQ30, AR30, AN31, AO31, AP31, AQ31, AR31, AN32, AO32, AP32, AQ32, AR32, AN33, AO33 and AP33 are press releases issued by assignee ParkerVision, Inc.

Documents AP6, AQ6, AR6, AN7, AO7 and AP7 are copies of Declarations (including Exhibits) made by Messrs. Bultman, Cook, Holtz, Looke, Moses, Parker, and Sorrells, filed in the above-referenced co-owned related patents.

Documents AJ1, AL9, AJ10, AA19, AC25, AB30 and AF32 were cited in search reports in the corresponding foreign applications of the above-referenced co-owned related patents.

Documents AK9, AC17, AD36 and AD40 were listed in a search report issued by the International Searching Authority in PCT application serial number PCT/US00/21359, entitled "Wireless Local Area Network (WLAN) Using Universal Frequency Translation Technology," directed to related subject matter.

Documents AM10, AJ11, AK11 and AE40 were listed in a communication issued by the International Preliminary Examination Authority in PCT application serial number PCT/US00/01108, entitled "Frequency Translation and Embodiments Thereof Such as the Family Radio Service," directed to related subject matter.

Documents AI7, AJ9, AK9, AG20, AG21, AB30 and AI43 were listed in a written opinion issued by the International Preliminary Examination Authority in PCT application serial number PCT/US00/23923, entitled "Applications of Frequency Translation," directed to related subject matter.

Documents AA44, AL11, AM11 and AQ50 were listed in a communication issued by the International Searching Authority in PCT application serial number PCT/US00/09911, entitled "Method And System For Down-converting an Electromagnetic Signal, And Transforms For Same," directed to related subject matter.

Documents AB44 and AC44 were cited by an Examiner in co-pending U.S. Patent Application Serial No. 09/293,342, filed April 16, 1999, entitled "Method and System for

Down-Converting Electromagnetic Signals Including Resonant Structures for Enhanced Energy Transfer".

Documents AD44, AE44, AF44, AG44, AH44, AI44, AA45, AB45, AC45 and AD45 were cited by an Examiner in co-pending U.S. Patent Application Serial No. 09/261,129, filed March 3, 1999, entitled "Applications of Universal Frequency Translation".

Documents AE45, AF45, AJ12 and AK12 were listed in a search report issued by the International Searching Authority in PCT application serial number PCT/US00/27555, entitled "DC Offset, Re-radiation, and I/Q Solutions Using Universal Frequency Translation Technology," directed to related subject matter.

Documents AG45, AH45, AL12 and AM12 were listed in a search report issued by the International Searching Authority in PCT application serial number PCT/US00/34771, entitled "Phase Comparator Using Undersampling," directed to related subject matter.

Documents AI45, AJ13, AK13, AL13 and AB46 were listed in a search report issued by the International Searching Authority in PCT application serial number PCT/US00/27281, entitled "Frequency Converter and Method," directed to related subject matter.

Document AA46 was cited by an Examiner in co-pending U.S. Patent Application Serial No. 09/293,580, filed April 16, 1999, entitled "Method and System for Frequency Up-Conversion with a Variety of Transmitted Configurations".

It is noted that some of these documents could be classified in more than one of the above categories.

The other documents in the PTO-1449 do not fall within the above categories.

This statement should not be construed as a representation that information more material to the examination of the present patent application does not exist. The Examiner is specifically requested not to rely solely on the material submitted herewith.

Applicants have checked the appropriate boxes below.

- 1. This Information Disclosure Statement is being filed before the mailing date of a first
 Office Action on the merits. No statement or fee is required.
- □ 2. This Information Disclosure Statement is being filed more than three months after the U.S. filing date AND after the mailing date of the first Office Action on the merits, but before the mailing date of a Final Rejection or Notice of Allowance.
 - □ a. I hereby state that each item of information contained in this Information

 Disclosure Statement was cited in a communication from a foreign

 patent office in a counterpart foreign application not more than three

 months prior to the filing of this Information Disclosure Statement.

 37 C.F.R. § 1.97(e)(1).
 - □ b. I hereby state that no item of information in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application and, to my knowledge after making reasonable inquiry, was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing of this Information Disclosure Statement. 37 C.F.R. § 1.97(e)(2).
 - □ c. Attached is our Check No. _____ in the amount of _____ in payment of the fee under 37 C.F.R. § 1.17(p).
- □ 3. This Information Disclosure Statement is being filed more than three months after the U.S. filing date and after the mailing date of a Final Rejection or Notice of Allowance, but before payment of the Issue Fee. A separate Petition to the Group Director, requesting consideration of this Information Disclosure Statement, is concurrently submitted herewith, along with our Check No.

	in the amount of \$	in payment of the fee	under 37 C.F.R.
§ 1.17(i).			

- □ a. I hereby state that each item of information contained in this Information

 Disclosure Statement was cited in a communication from a foreign

 patent office in a counterpart foreign application not more than three

 months prior to the filing of this Information Disclosure Statement.

 37 C.F.R. § 1.97(e)(1).
- □ b. I hereby state that no item of information in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application and, to my knowledge after making reasonable inquiry, was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing of this Information Disclosure Statement. 37 C.F.R. § 1.97(e)(2).
- □ 4. The document(s) was/were cited in a search report by a foreign patent office in a counterpart foreign application. Submission of an English language version of the search report that indicates the degree of relevance found by the foreign office is provided in satisfaction of the requirement for a concise explanation of relevance. 1138 OG 37, 38.
- - Document AJ1 (DE 42 37 692 C1) appears to be a receiver for a digital radio signal. The corresponding U.S. Patent No. 5,493,721 is enclosed as document AG28 on the attached PTO-1449.
 - Document AK1 (EP 0 035 166 A1) appears to describe a digitized receiver. A copy of the English language abstract of document AK1 is enclosed as document AQ8 on the attached PTO-1449.
 - Document AJ6 (EP 0 785 635 A1) appears to describe a method and apparatus for frequency diversity transmission using a plurality of uncorrelated carriers. A

- copy of the English language abstract of document AJ6 is enclosed as document AP8 on the attached PTO-1449.
- Document AK7 (FR 2 743 231 A1) is the corresponding French application of document AJ6 (EP 0 785 635 A1), which is described above.
- Document AJ8 (JP 2-39632) appears to describe a transmitter for frequency diversity. A copy of the English language abstract of document AJ8 is enclosed as document AO8 on the attached PTO-1449.
- Document AK8 (JP 2-131629) appears to describe a transmitter-receiver for frequency diversity. A copy of the English language abstract of document AK8 is enclosed as document AN8 on the attached PTO-1449.
- Document AL8 (JP 2-276351) appears to describe an FSK demodulating circuit. A copy of the English language abstract of document AL8 is enclosed as document AR7 on the attached PTO-1449.
- Document AK11 (FR 2245130) appears to describe a converter. An English translation of document AK11 is enclosed as document AP50 on the attached PTO-1449.
- Document AL11 (DE 3541031) appears to describe a method and device for demodulating high-frequency modulated signals. An English translation of document AL11 is enclosed as document AR50 on the attached PTO-1449.
- Document AM11 (EP 0 732 803) appears to describe a procedure and device for demodulation by sampling. An English translation of document AM11 is enclosed as document AN51 on the attached PTO-1449.
- Document AJ12 (DE 19735798) appears to describe a transceiver. An English translation of document AJ12 is enclosed as document AP51 on the attached PTO-1449.
- Document AQ50 (Fest *et al.*) appears to discuss analog-digital converters. An English translation of document AQ50 is enclosed as document AO51 on the attached PTO-1449.

It is respectfully requested that the Examiner initial and return a copy of the enclosed PTO-1449, and indicate in the official file wrapper of this patent application that the documents have been considered.

The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036. A duplicate copy of this pleading is enclosed.

Respectfully submitted,

STERNE KESSLER, GOLDSTEIN & FOX P.L.L.C.

Michael O. Lee

Attorney for Applicants Registration No. 35,239

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*LIMITED TO MATTERS
AND PROCEEDINGS BEFORE
FEDERAL COURTS & AGENCIES
**REGISTERED PATENT AGENT
***SENIOR COUNSEL

September 14, 2001

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WRITER'S DIRECT NUMBER: (202) 371-2674 INTERNET ADDRESS: MLEE@SKGF.COM

Art Unit 2681

Commissioner for Patents Washington, D.C. 20231

Re: U.S. Non-Provisional Utility Patent Application

Appl. No. 09/550,644; Filed: April 14, 2000

For: Method and System for Down-Converting an Electromagnetic

Signal, Transforms for Same, and Aperture Relationships

Inventors: Sorrells et al. Our Ref: 1744.0010009

Sir:

Transmitted herewith for appropriate action are the following documents:

- 1. Information Disclosure Statement (in duplicate);
- 2. List of cited documents (AA1-AP51) on Form PTO-1449 (51 pages);
- 3. Compact Discs labeled "Sterne1B" and "Sterne2B" having stored thereon searchable electronic copies (in PDF format) of each document listed in the PTO-1449; and
- 4. One Return Postcard.

It is respectfully requested that the attached postcard be stamped with the date of filing of these documents, and that it be returned to our courier. In the event that extensions of time are necessary to prevent abandonment of this patent application, then such extensions of time are hereby petitioned.

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.

Commissioner for Patents September 14, 2001 Page 2

The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036. A duplicate copy of this letter is enclosed.

Respectfully submitted,

STERNE KESSLER, GOLDSTEIN & FOX P.L.L.C.

Attorney for Applicants

Registration No. 35,239

Enclosures

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1744.0010009

APPLICATION NO.

09/550,644

APPLICANT
Sorrells et al.

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					U.S. P.	ATEN'	DOCUMENT	'S				
EXAMINER INITIAL				DATE		NAM	E .			CLASS	SUB- CLASS	FILING DATE
	DOCUMENT NUMBER AA1 2,057,613 10/1936 Gardner 2 250 8 AB1 2,241,078 05/1941 Vreeland 3 7 179 15 AC1 2,270,385 01/1942 Skillman 2 7 179 15 AD1 2,283,575 05/1942 Roberts 250 6 AE1 2,358,152 09/1944 Earp 179 171.5 AF1 2,410,350 10/1946 Labin et al. 179 15 AG1 2,451,430 10/1948 Barone 250 8 AH1 2,462,069 02/1949 Chatterjea et al. 250 17 AI1 2,462,181 02/1949 Grosselfinger 250 17 FOREIGN PATENT DOCUMENTS											
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	AK1	EP 0	035 166 A1		09/1981		EP			НО4В	1/26	No
	AL1	EP O	193 899 B1		06/1990		EP			G01S	7/52	
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APPLICANT Sorrells et al.

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	AJ2	EP 0	380 351 A3		02/1991		EP		нозн	17/04	Yes No
	AK2	EP 0	411 840 A2		02/1991		EP		G01R	33/36	Yes No
	AL2	EP 0	411 840 A3		07/1991		EP		G01R	33/36	Yes No
	AM2	EP 0	411 840 B1		10/1995		EP		G01R	33/36	.Yes No
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ATTY. DOCKET NO. 1744.0010009 09/550,644

APPLICANT Sorrells et al.

FILING DATE GROUP 2681

U.S. PATENT DOCUMENTS EXAMINER CLASS SUB-FILING DATE INITIAL DOCUMENT DATE NAME **CLASS** NUMBER King et al. 🗭 332 22 AA3 3,118,117 01/1964 40 AB3 3,226,643 12/1965 McNair 325 Ш 06/1966 Shepherd \cap 325 145 AC3 3,258,694 Π 163 05/1968 Sanders 325 AD3 3,383,598 05/1968 325 30 AE3 3,384,822 Miyagi П ਰ 178 66 3,454,718 07/1969 Perreault AF3 347 AG3 3,523,291 08/1970 **Pierret** 340 9 332 AH3 3,548,342 12/1970 Maxey 325 320 01/1971 **Perreault** AI3 3,555,428 **FOREIGN PATENT DOCUMENTS EXAMINER** CLASS SUB-TRANSLATION DOCUMENT NUMBER COUNTRY INITIAL DATE **CLASS** ΕP H04N 7/01 AJ3 EP 0 423 718 A2 04/1991 Yes Nο ΕP H04N 7/01 Yes AK3 EP 0 423 718 A3 08/1992 No AL3 ΕP H₀3D 3/00 Yes EP 0 486 095 A1 05/1992 No 3/00 Yes EP 0 486 095 B1 02/1997 H₀3D AM3 No OTHER (Including Author, Title, Date, Pertinent Pages, etc.) Austin, J. et al., "Doppler Correction of the Telecommunication Payload Oscillators in the UK T-SAT," 18th European Microwave Conference, Microwave Exhibitions and Publishers Ltd., pp. 851-857 (September 12 -AN 15, 1988). Auston, D.H., "Picosecond optoelectronic switching and gating in silicon," Applied Physics Letters, American AO <u>3</u> Institute of Physics, Vol. 26, No. 3, pp. 101-103 (February 1, 1975). Baher, H., "Transfer Functions for Switched-Capacitor and Wave Digital Filters," IEEE Transactions on Circuits ΑP 3 and Systems, IEEE Circuits and Systems Society, Vol. CAS-33, No. 11, pp. 1138-1142 (November 1986). Baines, R., "The DSP Bottleneck," IEEE Communications Magazine, IEEE Communications Society, pp. 46-54 AQ <u>3</u> (May 1995). Banjo, O.P. and Vilar, E., "Binary Error Probabilities on Earth-Space Links Subject to Scintillation Fading," AR 3 Electronics Letters, IEE, Vol. 21, No. 7, pp. 296-297 (March 28, 1985). DATE CONSIDERED **EXAMINER**



ATTY. DOCKET NO. 1744.0010009

APPLICATION NO. 09/550,644

APPLICANT

Sorrells et al.

GROUP

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EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in

conformance and not considered. Include copy of this form with next communication to Applicant.

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ATTY. DOCKET NO. APPLICATION NO. 1744.0010009 09/550,644

APPLICANT Sorrells et al.

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	AA5	3,73	5,048	05/1	973	Toms	a et al.			179		15 BM	
	AB5	3,80	6,811	04/1	974	Thon	npson		丑	325		146	
	AC5	3,86	8,601	02/1	975	Mac		SEF	<u>m</u>	332		45	
	AD5	3,94	19,300	04/1	976	Sadle	- (6)	<u> </u>	<u>m</u>	325		31	
	AE5	3,96	7,202	06/1	976	Batz	ord mer	છ	Z	325		31	
	AF5	3,98	0,945	09/1	976	Bickf	ord g	2001	皿	325		30	
	AG5	3,98	37,280	10/1	976	Baue	<u>, e</u>	5 3	0	235		150.53	
	AH5	3,99	1,277	11/1	976	Hirat	a g	2	_	179		15 FD	
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-	AJ5	EP 0	632 288 A2		01/1995		EP			G01	S	13/75	Yes No
	AK5	EP O	632 288 A3		07/1996		EP			G01	S	13/75	Yes No
	AL5	EP 0	696 854 A1		02/1996	_	EP			H04	В	1/26	Yes No
	AM5	EP O	782 275 A2		07/1997		EP			H04	В	7/02	Yes No
	•		OTHE	₹ (Incl	uding Auth	or, Ti	le, Date,	Pertine	ent Pag	es, etc.)			
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	AO	<u>5</u>	Burgueño, A communicat (September/	ions," d	annales des	of rair tèlèco	gauge intendication	egratio ons, Inte	n time o ernation	n the rain al Union c	rate s of Radi	tatistics used o Science, p	d in microwave pp. 522-527
	АР	<u>5</u>	Burgueño, A Application t (ICAP 87) Pa	o Micr	owave Com	munic	ations," <i>Fif</i> i	th Inter	national	Conference	ce on A	sity of Rainfo Antennas an	all Rate with d Propagation
	AQ	<u>5</u>	Burgueño, A Communica Propagation,	ions,"	Sixth Interno	ational	Conference	e on Ar	on Rate R ntennas (Return Peri and Propa	iods in gation	the Contex (ICAP 89) F	t of Microwave Part 2:
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	AA6	4,0	13,966	03/1	977	Cam	pbell 📜	SER 19	325	363	
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	AC6	4,0	35,732	07/1	977	Lohr	mann Z	9 1	325	446	
	AD6	4,0	47,121	09/1	977	Cam	mann pbell ng	TO TO	331	76	
	AE6	4,0	66,841	01/1	978	Your	ng Ç		178	66 R	
	AF6	4,00	66,919	01/1	978	Hunt	ington	60	307	353	
	AG6	4,08	81,748	03/1	978	Batz		0	325	56	
	AH6	4,13	30,765	12/1	978	Arak	elian et al.		307	220 R	
•	Al6	4,13	30,806	12/1	978	Van	Gerwen et d	al.	325	487	
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	AJ6	EP C	785 635 A1		07/1997		EP		НО4В	1/713	
	AK6	EP C	795 978 A2		09/1997		EP	2 34 4	H04L	5/06	Y
	AL6	EP C	837 565 A1		04/1998		EP		НО4В	1/69	Ye
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	AO	<u>6</u>						ownconversion 0-213 (Septem			te Circuits
	АР	<u>6</u>	Copy of Decl to related sul	aratio	n of Michael natter.	l J. Bul	ltman filed i	n patent applic	ation Ser. No.	09/176,022	, which is directe
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INFORMATION DISCLOSURE STATEMENT
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ATTY. DOCKET NO. 1744.0010009 APPLICATION NO. 09/550,644

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Sorrells et al. FILING DATE

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2011	AA7	4,14	42,155	02/1	979	Adad	chi orian ce et al. or et al.	325	47	
	AB7	4,17	70,764	10/1		Salz	et al. o o m	332	17	
	AC7		04,171	05/1	980	Sutp	hin, Jr. 🙎 💪 🔼	328	167	
	AD7		10,872	07/1		1	porian Republic	330	9	
	AE7	1	45,355	01/1		1	pe et al.	455	326	
<u> </u>	AF7	+	53,066	02/1		Fishe	er et al. 26	329	50	
	AG7		53,069	02/1		Noss	ek 8	330	107	1
	AH7	1 -	08,614	12/1			ar et al.	370	119	
	AI7	_	20,361	03/1		Kikke		332	16 R	
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	AJ7	EP 0	874 499 A2		10/1998		EP	H04L	25/06	Yes No
	AK7	FR 2	743 231 A1		07/1997		FR	H04B	7/12	No
	AL7	GB :	2 161 344 A		01/1986	-	GB	H04B	7/12	Yes No
	AM7	GB :	2 215 945 A		09/1989		GB	H04L	27/00	Yes No
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	AN	Z	Copy of Decl related subje			C. Lo	oke filed in patent applicati	on Ser. No. 0	9/176,022,	which is directed to
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	АР	Z					er and David F. Sorrells, w ich is directed to related su		t Exhibit 1, fi	led in patent
	AQ	Z	Dewey, R.J. o Implemented	ind Co Radio	ollier, C.J., "/ ss, IEE, pp. 3	Multi-/ /1-3/:	Mode Radio Receiver," <i>Elect</i> 5 (October 18, 1985).	ronics Division	Colloquium	on Digitally
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ATTY. DOCKET NO. 1744.0010009 APPLICATION NO. 09/550,644

APPLICANT Sorrells et al.

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	AA8	4,32	20,536	03/1	982	Dietr	ich 😤	2 10	455	325	
	AB8	4,34	46,477	08/1	982	Gord	y 92	<u>0</u> Z	455	257	
	AC8	4,35	55,401	10/1	982	lkom	a et al.	73 [375	5	
	AD8	4,3	56,558	10/1	982	Owe	n et al. 🧐	<u> </u>	364	724	
	AE8	_	50,867	11/1		Gon	da 'č	<u> </u>	363	158	
	AF8		53,132	12/1		Colli	<u>.</u>	<u> </u>	455	52	
	AG8	1	55,217	12/1		1	er et al.		333	165	-
	AH8		70,572	01/1		 	nd et al.		307	353	-
	AI8	4,38	39,579	06/1	_	Stein			307	353	
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EXAMINER INITIAL		DO	CUMENT NUM	NBER	DATE		COUNTRY		CLASS	SUB- CLASS	TRANSLATION
	AJ8	JP 2	-39632		02/1990		JP		H04B	7/12	No
	AK8	JP 2	-131629		05/1990		JP		H04B	7/12	No
	AL8	JP 2	-276351		11/1990		JP		H04L	27/22	No
	AM8	wo	80/01633 A1		08/1980		PCT		H04J	1/08	Yes No
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	AN	<u>8</u>	DIALOG File Page).	347 (JAPIO) Engli	ish Lar	guage Patent Ab	stract for JP	2-131629,	published M	ay 21, 1990, (1
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ATTY. DOCKET NO. 1744.0010009

APPLICATION NO. 09/550,644

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Sorrells et al.

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AD9	•	AB9	4,43	30,629	02/1	984	Betzl	et al.	ech	S		33	3	165	
AD9		AC9	4,44	16,438	05/1	984	Chai	ng et al.	nol	EP	\overline{C}	32	8 _	127	
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No.		AF9	4,47	9,226	10/1	984	Prab	hu et al.	Ž.	20		37	5	1	
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Faulkner, N.D. and Vilar, E., "Time Domain Analysis of Frequency Stability Using Non-Zero Dead-Time Domain Analysis of Frequen		АР	2	Microwave C)scillat	tors," CPEM	monic 82 Dig	Sampling jest: Confe	for the	e Accu on Pred	rate M cision	easur Electro	ement o	of Frequence etic Measure	ry Stability of ements, IEEE, pp.
81 (1984).		AQ	9	Counter Tecl	D. and	d Vilar, E., "T es," CPEM 84	ime D I Dige	omain An st Confere	alysis on	of Frequencisi	uency ion Ele	Stabil	ity Usin agnetic	ig Non-Zero Measurema	Dead-Time ents, IEEE, pp. 81-
Filip, M. and Vilar, E., "Optimum Utilization of the Channel Capacity of a Satellite Link in the Presen Amplitude Scintillations and Rain Attenuation," <i>IEEE Transactions on Communications</i> , IEEE Commun Society, Vol. 38, No. 11, pp. 1958-1965 (November 1990).		AR	9	Amplitude So	cintilla	tions and Ro	ıin Att	enuation,'	" IEEE 7	Transac	tions o	ity of on Co	a Satel mmunic	lite Link in t ations, IEEE	he Presence of Communications
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INFORMATION DISCLOSURE STATEMENT DEMARKS

APPLICANT Sorrells et al.

April 14, 2000

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EXAMINER INITIAL		-	CUMENT MBER	DATI	Ē	NAN	et al. Roermund Re et al.	CLASS	SUB- CLASS	FILING DATE
	AA10	4,50	4,803	03/1	985	Lee	et al. g /	332	31 R	
	AB10	+	7,519	05/1		Muk	aiyama	329	126	
	AC10	1	7,520	05/1		Oga	wa II O	329	145	
	AD10		8,935	05/1		van	Roermund	333	173	
	AE10	_	21,892	06/1		Vano	ce et al.	375	88	
	AF10		3,773	07/1		Dixo	n, Jr. et al.	455	327	
	AG10	_	7,157	03/1		Reed		329	50	
	AH10	1	33,239	04/1		Vano	:e	375	94	
	AI10	1	71,736	05/1		Hira	o et al.	307	267	
	1	1		,		<u> </u>	ENT DOCUMENTS			•
EXAMINER INITIAL		DOG	CUMENT NUM	BER	DATE		COUNTRY	CLASS	SUB- CLASS	TRANSLATION
.,,,	AJ10	wo	97/38490 A1		10/1997		PCT	нозк	7/00	Yes No
-	AK10	wo	98/00953 A1		01/1998		PCT	H04L	27/26	Yes No
	AL10	wo	98/24201 A1		06/1998	-	PCT	H04H	1/00	Yes No
	AM10	EP 0	099 265 A1		01/1984		EP	H03D	3/04	Yes No
			OTHER	(Incl	uding Auth	or, Ti	tle, Date, Pertinent Pages	, etc.)		
	AN	<u>10</u>	IEEE, Vol. SC	-19, N	lo. 6, pp. 92	:6-93:	I Signaling Filter with Q Redu 2 (December 1984). time statistics of rain attenua gation, IEE, Vol. 135, Pt. H, N	ition on eartl	n-space path	," IEE Proceedings-
	AP	<u>10</u>	Gibbins, C.J.	and (Chadha, R., '	"Millin	netre-wave propagation thro 173 (April 1987).			
	AQ	<u>10</u>	Gilchrist, B. & Publishing, V	et al., ' 'ol. 23	'Sampling hi , No. 1, pp.	ikes p	erformance of frequency synt and 110 (January 1984).	hesizers," Mi	crowaves & I	RF, Hayden
	AR	<u>10</u>					rological effects on propagat n, Vol. 16, No. 5, pp. 589-60			
EXAMINER			<u> </u>					DATE CON	SIDERED	

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EXAMINER INITIAL			CUMENT MBER	DATI		NAM	LE TE	뀨	CLASS	SUB- CLASS	FILING DATE
	AA11	4,60	02,220	07/1	986	Kuril	nara 3 K	01	331	19	i
	AB11	4,60	03,300	07/1	986	Well	es, II et al.	Ä	329	50	
	AC11	4,6	12,464	09/1	986	lshik	awa et al.	Z	307	496	
	AD11	4,6	12,518	09/1	986	Gan	s et al. 2001 ni et al.	Π	332	21	
	AE11	4,6	16,191	10/1	986	Gala	ni et al. 🤦 🧐	2,	331	4	
	AF11	4,62	21,217	11/1	986	Saxe	et al.		315	1	
	AG11	4,62	28,517	12/1	986	Schw	arz et al.		375	40	
	AH11	4,63	34,998	01/1	987	Crav			331	1 A	
	Al11	4,64	48,021	03/1	987	Albe	rkrack		363	157	
					FOREIGN	I PAT	ENT DOCUMENTS		<u> </u>	•	
EXAMINER INITIAL		DO	CUMENT NUM	BER	DATE		COUNTRY		CLASS	SUB- CLASS	TRANSLATION
	AJII	EP C	560 228 A1		09/1993		EP		H03D	7/12	N/A
	AK11	FR 2	2 245 130		04/1975		FR		Н03К	5/13	Yes (See AP50)
	AL11	DE :	35 41 031 A1	•	05/1986		DE		H03D	3/00	Yes (See AR50)
	AM11	EP 0	732 803 A1		09/1996		EP		H03D	3/00	Yes (See AN51)
			OTHER	(Incl	uding Auth	or, Ti	tle, Date, Pertinent Pa	ges, e	etc.)		
	AN	11	Gregorian, R 941-966 (Au			Capad	citor Circuit Design," Proc	ceedin	gs of the IE	EE, IEEE, Vol	. 71, No. 8, pp.
	AO	<u>11</u>	Groshong et pp. 67-68, 7				hniques Simplify Digital 3, 1991).	Radio	," Electronic	: Design, Pen	ton Publishing,
	AP	11	Grove, W.M. Microwave Tl	, "Sam neory (pling for Os and Techniqu	cillosc ues, IE	opes and Other RF Syste EEF, pp. 629-635 (Decen	ems: D nber 1	c through) 966).	K-Band," IEEE	: Transactions on
	AQ	<u>11</u>	Haddon, J. et and Propaga				Aicrowave Scintillations o 1981).	on a Sc	atellite Dow	n-Link at X-l	Band," Antennas
	AR	11	Haddon, J. a Space Paths o Vol. AP-34, N	and th	e Influence	of Ant	nduced Microwave Scint enna Aperture," IEEE Tra , 1986).	illatio nsacti	ns from Cle ons on Ante	ear Air and Reennas and Pr	ain on Earth opagation, IEEE,
EXAMINER			1					1	DATE CONS	SIDERED	

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EXAMINER INITIAL			CUMENT MBER	DATI	=	NAM			CLASS	SUB- CLASS	FILING DATE
	AA12	4,65	51,034	03/1	987	Sato	et al. m lelin os er et al. aska et al. ne	<u>y</u>	307	556	
	AB12	4,67	75,882	06/1	987	Lillie	et al.	C'	375	80	
•	AC12	4,68	88,253	08/1	987	Gum	m %	7	381	7	
	AD12	4,71	16,376	12/1	987	Dave	lelin 2 0	7	- 027	107	
	AE12	4,71	16,388	12/1	987	Jacol	is es	3	333	173	
	AF12	4,71	18,113	01/1	988	Roth	os er et al.	2	455	209	
	AG12	4,72	26,041	02/1	988	Proh	aska et al.		375	91	
	AH12	4,73	33,403	03/1	988	Simo	ne 8		375	103	
	Al12	4,73	34,591	03/1	988	Ichits		-	307	219.1	
					FOREIGN	PAT	NT DOCUMENTS				
EXAMINER INITIAL		DO	CUMENT NUM	BER	DATE		COUNTRY		CLASS	SUB- CLASS	TRANSLATION
	AJ12	DE 1	197 35 798 C1		07/1998		DE		H04L	27/00	Yes (Doc. AP51)
	AK12	wo	98/40968		09/1998		PCT		H03L	7/08	N/A
	AL12	EP 0	529 836 A1		03/1993		EP		HO3L	7/089	N/A
	AM12	EP 0	795 955 A2&	A3	09/1997		EP		нозр	13/00	N/A
			OTHER	(Inci	uding Auth	or, Ti	le, Date, Pertinent Pa	ges,	etc.)		
	AN	<u>12</u>	Hafdallah, H (February 4,			AESFE	「Sampler," Electronics Le	etters	, IEE, Vol. 24	I, No. 3, pp.	151-153
	AO	<u>12</u>					ase Scintillation Measurd No. 7, pp. 287-289 (Ap			n Line-Of-Si	ght Path at 30
	AP	12	Hewitt, A. et Measuremen 1985)	al., "A ts for ī	n 18 Ghz W Telecommun	ideba icatio	nd LOS Multipath Experi Transmission Systems -	meni MTT:	," Internation S 85, IEE, pp.	nal Conferen . 112-116 (h	ce on November 27-28,
	AQ	<u>12</u>		ts," <i>IEI</i>	EE Transactio	ons on	Approach to the Identifice Communications, IEEE C				
	AR	12	Hewitt, A. an Measuremen No. 7, pp. 78	t Tech	niques," <i>IEEI</i>	E Tran	ling on LOS Microwave l sactions on Communicat	Links ions,	: Classical ar IEEE Comm	nd Spread-S unications S	pectrum ociety, Vol. 36,
EXAMINER			<u> </u>						DATE CONS	SIDERED	

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ATTY. DOCKET NO. 1744.0010009 APPLICATION NO. 09/550,644

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	AA13	4,73	37,969	04/1	988	Steel	et al. e	375	67	
	AB13	4,74	13,858	05/1	988	Ever	ard 3 S	330	10	
	AC13	4,74	15,463	05/1	988	Lu	ton V	358	23	
	AD13	4,75	1,468	06/1	988	Agos	ton Z	328	133	
	AE13	4,75	7,538	07/1	988	Zink	hall be	381	7	
	AF13	4,76	8,187	08/1	988	Mars	hall 2	370	69.1	
	AG13	4,76	9,612	09/1	988	Tame	skoshi et al. 👸	328	167	_
	AH13	4,78	5,463	11/1	988			375	1	ļ
	AI13	4,79	1,584	12/1	988	Grei	enkamp, Jr.	364	525	<u> </u>
					FOREIGN	PAT	NT DOCUMENTS			
EXAMINER INITIAL	:	DOG	CUMENT NUM	BER	DATE		COUNTRY	CLASS	SUB- CLASS	TRANSLATION
	AJ13	EP O	817 369 A2&	А3	01/1998		EP	H03D	7/00	N/A
	AK13	wo	91/18445 A1		11/1991		PCT	H03D	7/18	N/A
	AL13	wo	99/23755 A1		05/1999		PCT	H03D	7/16	N/A
	AM13		-							Yes No
			OTHER	t (Incl	uding Auth	or, Ti	lle, Date, Pertinent Pag	es, etc.)		
	АН	<u>13</u>	Hospitalier, E IEE, Vol. VII,				ding and Observing Rapid	dly Varying Phei	nomena," Sc	ience Abstracts,
	AO	13	Howard, I.M. Detection," T Australia, pp	he Inst	titution of En	ginee	remodulating High Frequents Australia Vibration and 18-20, 1990).	ency Resonance Noise Conferenc	Signals for I	Bearing Fault n of Engineers,
	АР	<u>13</u>	Hu, X., A Swi Science, Dep 1-64 (1995).	t. of E	Current San lectrical and	nple-ai Com _i	nd-Hold Amplifier for FM [outer Engineering, Univer	Demodulation, T sity of Toronto,	hesis for Ma UMI Disserta	ister of Applied ation Services, pp.
	AQ	<u>13</u>	Hung, H-L. A Sampling Sys	. et al stem,"	., "Characte IEEE MTT-S	rizatio Digest	n of Microwave Integrated , IEEE, pp. 507-510 (1991	d Circuits Using 1).	An Optical f	Phase-Locking and
	AR	13					esponse of Switched-Capa IEEE Circuits and Systems			
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EXAMINER INITIAL			CUMENT ABER	DATE		NAA			뀨	CL	ASS	SUB- CLASS	FILING DATE
	AA14	+	1,823	01/1	989	Yok	oyama 👂	P	\mathcal{C}	307	7	353	
	AB14		06,790	02/1	989	Son		 	四	307	7	353	
	AC14	4,81	0,904	03/1	989	Cra	wford 6	9		307	7	353	
	AD14	4,81	0,976	03/1	989	Cov	/ley et al.	100		33		117 R	
	AE14	4,81	1,362	03/1	୨89	Yest	er, Jr. et al.	2600		375	5	75	
	AF14	4,81	9,252	04/1	989	Chri	istopher	<u>8_</u>		375	5	122	
	AG14	4,83	3,445	05/1	05/1989		Buchele					118	
	AH14	4,86	2,121	08/1	989					333	333	173	
	Al14	4,86	8,654	09/1	989	Juri	et al.			358	3	133	
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EXAMINER INITIAL		DOG	CUMENT NUM	BER	DATE		COUNTRY			CLA	ASS	SUB- CLASS	TRANSLATION
	AJ14												Yes No
	AK14												Yes No
	AL14												Yes No
	AM14												Yes No
			OTHE	(Incl	uding Auth	or, T	itle, Date, Per	tinent	Pages,	etc.)			
	AN	14	Itakura, T., "I circuit," IEE P	Effects	of the samp dings Circuits	ling p	oulse width on t rices and System	he frec ns, IEE,	quency o Vol. 14	harac 1, No.	teristics 4, pp. 3	of a sampl 328-336 (A	e-and-hold August 1994).
	AO	<u>14</u>	Janssen, J.M Fundamenta 1950).	.L., "Ar ls," <i>Phi</i>	n Experiment ilips Technico	tal 'Si al Rev	troboscopic' Os view, Philips Res	cillosco search	ope for I Laborat	reque ories,	ncies up Vol. 12,	o to about No. 2, pp.	50 Mc/s: I. 52-59 (August
	AP	14	Janssen, J.M 50 Mc/s: II. E 73-82 (Septe	lectric	al Build-Up,	J., "A " <i>Phil</i>	n Experimental ips Technical Re	'Strobo view, I	oscopic' Philips R	Oscill esearc	oscope f h Labor	for Frequer atories, Vo	ncies up to about I. 12, No. 3, pp.
	AQ	14	Jondral, V.F. (May-June 1		"Doppler Pr	ofiles	for Communic	ation S	atellites	," Freq	juenz, H	lerausberg	er, pp. 111-116
	AR	14	Kaleh, G.K., Interference,	"A Fre " 1995	quency Dive	rsity (Spread Spectrur IEEE Communic	n Syste	em for C Society	ommı , pp. 6	unication 6-70 (1	n in the Pre 995).	sence of In-band
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	AA15	4,87	70,659	09/1	989	Oish	i et al.	P	$\ddot{}$	375	-	82	
	AB15	1	71,987	10/1		Kaw	ase 🥰		m	332		100	
	AC15	T	35,587	12/1	989	Wieg	gand et al.	क	<u> </u>	42	·	14	
	AD15	4,88	35,756	12/1	989	Font	anes et al.	200		375		82	
	AE15	4,88	38,557	12/1	989	Puck	ette, IV et al. 🔀			329		341	
	AF15	4,89	0,302	12/1	989	Muil				375		80	
_	AG15	4,89	93,316	01/1	990	Janc	et al.			375		44	
	AH15	4,89	93,341	01/1	990	Geh	ring			381		7	
	Al15	4,89	94,766	01/1	990	De A	gro			363		159	
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	AJ15			·									Yes No
	AK15												Yes No
	AL15												Yes No
	AM15												Yes No
			OTHE	(Incl	uding Auth	or, Ti	tle, Date, Pertin	ent P	ages,	etc.)			
	AN	<u>15</u>	Karasawa, Y Transactions 1608-1614 (on An	tonnas and P	dictio Propag	n Method for Trop gation, IEEE Anten	oosph inas a	eric Sc Ind Pro	intillat pagati	ion on l	Earth-Spaciety, Vol. 3	e Paths," <i>IEEE</i> 6, No. 11, pp.
	AO	<u>15</u>	Kirsten, J. an Cahners Pub	d Flen lishing	ning, J., "Und J, Vol. 35, No	dersar o. 13,	mpling reduces do pp. 217-222, 22	ita-ac 4, 22	quisitio 6-228	on cost (June :	s for se 21, 199	elect applica 20).	ations," EDN,
	АР	<u>15</u>		oceed			e Phase Noise Ch EEE International						nications Channel pp. 283-288
	AQ	<u>15</u>	Lam, W.K. ef No. 9, pp. 73				g of 11.6 Ghz tra	nshor	izon cł	nannel	," Electr	onics Lette	rs, IEE, Vol. 30,
	AR	<u>15</u>	Larkin, K.G., 2, pp. 101-1				or bandpass sam	oled A	∙M sigr	nals," E	lectroni	ics Letters,	IEE, Vol. 32, No.
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ATTY. DOCKET NO. APPLICATION NO. 1744.0010009 09/550,644

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EXAMINER INITIAL		DOCUMENT NUMBER	DAT	E	NAM	RECEI SEP 1	CLASS	SUB- CLASS	FILING DATE
	AA16	4,896,152	01/1	1990	Tiem	iann & H	340	853	
	AB16	4,902,979	02/1	1990	Puck	ette. IV C 🤒 🚄	329	343	
	AC16	4,908,579	03/1	1990	Tawf	fik et al. 20 M	328	167	
	AD16	4,910,752	03/1	990	Yeste	er, Jr. et al.	375	75	
	AE16	4,914,405	04/1	990	Well	s 60	331	25	
	AF16	4,920,510	04/1	990	Send	lerowicz et al.	364	825	
	AG16	4,922,452	05/1	990	Larse	en et al.	365	45	
	AH16	4,931,921	06/1	990	Ande	erson	363	163	
	Al16	4,944,025	07/1	990	Gehi	ring et al.	455	207	
				FOREIGN	I PAT	ENT DOCUMENTS			
EXAMINER INITIAL		DOCUMENT NUM	ABER	DATE		COUNTRY	CLASS	SUB- CLASS	TRANSLATION
	AJ16								Yes No
	AK16								Yes No
	AL16								Yes No
	AM16						1		Yes No
	!	OTHE	R (Incl	udina Auth	or. Ti	tle, Date, Pertinent Pages,	etc.)	<u>I</u>	, ,,,,
	AN	Lau, W.H. et 16 IEEE Global 1988).	al., "A Teleco	nalysis of th	e Time	e Variant Structure of Microwo ference & Exhibition, IEEE, pp	ive Line-of-sig 1707-1711	ght Multipath (November 2	n Phenomena," 28 - December 1,
	AO					gorithm to Identify Multipath C ber 24, 1987).	Components,"	Electronics L	etters, IEE, Vol.
	АР		on Ins	trumentation	n and i	Dead-Time on the Estimation Measurement, IEEE Instrumen			
	AQ	16 Speed Modu	lators,	" IEEE Transc	actions	ate GaAs MESFET's as Gain-C s on Microwave Theory and Te . 6, pp. 461-469 (June 1975)	chniques, IEE		
	AR					sample Per Second Transient l iences Society, Vol. NS-26, No			
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	AA17	4,95	5,079	09/1	990	Conr	nerney et 🕏	EP	Ö	455	325	
	AB17	4,96	5,467	10/1	990	Bilter		حسه	m	307	352	
	AC17	4,96	7,160	10/1	990	Quie	vy et al. Charan et al. Charan et al.	ေ		328	16	
	AD17	4,97	0,703	11/1	990	Haril	naran et al. 🗟	2001	T	367	138	
	AE17	4,98	2,353	01/1	991	Jacol	et al.	5 =		364	724.10	
	AF17	4,98	34,077	01/1	991	Uchi	da Ç	<u> </u>		358	140	
	AG17	4,99	5,055	02/1		Wein	berger et al.			375 455	5	
	AH17	5,00	3,621	03/1	991	Gailus					209	
	Al17	5,00	5,169	04/1	991	Bron	de <u>r et al.</u>			370	76	
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EXAMINER INITIAL		DOG	CUMENT NUM	BER	DATE		COUNTRY			CLASS	SUB- CLASS	TRANSLATION
	AJ17											Yes No
	AK17											Yes No
	AL17											Yes No
	AM17											Yes No
			OTHE	(Incl	uding Auth	or, Ti	ile, Date, Per	tinent	Pages,	etc.)		
	AN	<u>17</u>					Aided Analysis August 1983).	of Swit	tched-C	apacitor Cire	cuits," Proceed	lings of the IEEE,
	AO	<u>17</u>	Lo, P. et al., 2 2/6 (March 2	'Cohei !6, 19	rent Automa 80).	atic Ga	in Control," <i>IEI</i>	E Collo	quium c	on Phase Loc	ked Techniqu	es, IEE, pp. 2/1-
	АР	<u>17</u>	Lo, P. et al., ' Third Interna	'Comp tional	outation of R Conference	lain Ind	duced Scintilla tennas and Pro	tions o	n Satell ion (ICA	ite Down-Lin P 83), pp. 12	ıks at Microwo 27-131 (April	ove Frequencies," 12-15, 1983).
	AQ	<u>17</u>					mplitude Scint 7, pp. 307-308				n Earth-Space	e Path,"
	AR	<u>17</u>					Ghz Microwav Ind Techniques					vave Theory and 33 (October
EXAMINER			1	-						DATE CON	SIDERED	

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ATTY. DOCKET NO. 1744.0010009 09/550,644

APPLICANT Sorrells et al.

FILING DATE GROUP 2681

U.S. PATENT DOCUMENTS EXAMINER CLASS SUB-FILING DATE INITIAL **DOCUMENT** DATE NAME NUMBER **CLASS** 5,006,810 328 167 **AA18** 04/1991 Popescu AB18 5,010,585 04/1991 Garcia 455 118 Nicollini et al. 379 399 AC18 5,014,304 05/1991 05/1991 Sutton 329 361 AD18 5,015,963 Guiberteau et al. 342 195 AE18 5,017,924 05/1991 AF18 5,020,149 05/1991 Hemmie 455 325 AG18 5,020,154 05/1991 Zierhut 455 608 296 AH18 5,052,050 09/1991 Collier et al. 455 91 AI18 11/1991 Hughes et al. 375 5,065,409 **FOREIGN PATENT DOCUMENTS EXAMINER** CLASS TRANSLATION COUNTRY SLIR-INITIAL **DOCUMENT NUMBER** DATE **CLASS** AJ18 Yes No AK18 Yes No Yes AL18 No Yes **AM18** No OTHER (Including Author, Title, Date, Pertinent Pages, etc.) Marsland, R.A. et al., "130 Ghz GaAs monolithic integrated circuit sampling head," Appl. Phys. Lett., AN 18 American Institute of Physics, Vol. 55, No. 6, pp. 592-594 (August 7, 1989). Martin, K. and Sedra, A.S., "Switched-Capacitor Building Blocks for Adaptive Systems," IEEE Transactions on AO 18 Circuits and Systems, IEEE Circuits and Systems Society, Vol. CAS-28, No. 6, pp. 576-584 (June 1981). Marzano, F.S. and d'Auria, G., "Model-based Prediction of Amplitude Scintillation variance due to Clear-Air ΑP Tropospheric Turbulence on Earth-Satellite Microwave Links," IEEE Transactions on Antennas and 18 Propagation, IEEE Antennas and Propagation Society, Vol. 46, No. 10, pp. 1506-1518 (October 1998). Matricciani, E., "Prediction of fade durations due to rain in satellite communication systems," Radio Science, AQ <u> 18</u> American Geophysical Union, Vol. 32, No. 3, pp. 935-941 (May-June 1997). McQueen, J.G., "The Monitoring of High-Speed Waveforms," Electronic Engineering, Morgan Brothers AR 18 Limited, Vol. XXIV, No. 296, pp. 436-441 (October 1952). **EXAMINER DATE CONSIDERED**

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INFORMATION DISCLOSURE STATEMENT

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ATTY. DOCKET NO. 1744.0010009

APPLICATION NO. 09/550,644

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	AA19	5,08	33,050	01/1	992	Vasile		307	529	
	AB19	5,09	1,921	02/1	992	Mina		375	88	
	AC19	5,09	5,533	03/1	992	Lope	et al. g - M		245	
	AD19	5,09	5,536	03/1	992	Lope	40 9 4	455	324	
	AE19	5,11	1,152	05/1	992	Maki	no central 2001	327	300	-
	AF19	5,11	3,094	05/1			et al.	307	529	_
	AG19		3,129	05/1		Hugh	es <u>oʻ</u>	323	316	
	AH19	1 -	2,765	06/1		Patau		332	105	
	Al19	5,12	4,592	06/1		Hagii		307	520	-
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	AO	<u>19</u> <u>19</u>	Merlo, U. et No. 23, pp.	al., "A	mplitude Sci	intillati	on Cycles in a Sirio Satel	lite-Earth Link,"	Electronics Lo	etters, IEE, Vol. 21
	AP	<u>19</u>	Morris, D., "I a cosmic sign (September	nal soi	urce," Astron	reflect	or measurement of the 3 nd Astrophysics, Springer	0-m millimeter Verlag, Vol. 20	radio telesco 3, No. 2, pp	pe at 22 Ghz wit 399-406
	AQ	<u>19</u>	Moulsley, T.J Institution of	l. et al Electro	., "The efficie onic and Rad	ent acq dio Eng	uisition and processing o ineers, IERE, Vol. 55, No	of propagation s . 3, pp. 97-103	tatistics," Jou (March 1985	rnal of the
	AR	<u>19</u>		um on	Radio Comr		Characterization of an C tions at Microwave and N			
EXAMINER			<u> </u>		<u></u>	-	*	DATE CON	SIDERED	
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INFORMATION DISCLOSURE STATEMENT

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	AA20	5,13	36,267	08/1	992	Cab	ot (S	7	· 17	33	3	174	
	AB20	5,14	10,705	08/1	992	Kosı	uga 📆		0 Z	45	5	318	
	AC20	5,15	0,124	09/1	992	Mod	re et al.	9_	D TO	34	2	68	
	AD20	5,15	1,661	09/1	992	Calc	lwell et al.	_ 	<u> </u>	32	8	14	
_	AE20	5,15	9,710	10/1	992	Cus	din	<u> </u>		45	5	304	
	AF20	5,17	0,414	12/1	992	Silvi				37		59	
	AG20	1	2,070	12/1			iwa et al.			32		304	
	AH20		1,459	03/1			mpson et al.		 	35		133	
	Al20	5,20	4,642	04/1			gar et al.			33]	135	
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	AJ20											}	Yes No
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	AL20								****				Yes
	AM20	<u> </u>			÷					+		-	No Yes
		<u></u>											No
			OTHE	(Incl	uding Auth	or, T	itle, Date, Pe	rtinen	t Pages,	etc.)			
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	AO	<u>20</u>	"New zero IF (September	chipse 1995).	et from Philip	os," E	lectronic Engin	eering	, United	News	& Medic	ı, Vol. 67, t	No. 825, p. 10
	AP	20	Ohara, H. et Publishing C	al., "F ompar	irst monolith ny, Vol. 27, N	nic PC No. 8	M filter cuts co , pp. 130-135	ost of t (April	telecomm 12, 1979	ı syste: ?).	ms," Elec	ctronic Desi	ign, Hayden
	AQ	<u>20</u>	Oppenheim,	A.V. e	t al., Signals	and	Systems, Prent	tice-Ho	all, pp. 52	27-53	l and 50	61-562 (19	83).
	AR	<u>20</u>					ers Affecting Ar 17, pp. 771-7					ements on S	Satellite Links,"
EXAMINER			<u> </u>		<u> </u>					DATE	CONSI	IDERED	

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ATTY. DOCKET NO. APPLICATION NO. 1744.0010009 09/550,644

APPLICANT Sorrells et al.

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EXAMINER INITIAL				DATI		NAM	E			CLASS	SUB- CLASS	FILING DATE
	AA21	5,21	2,827	05/1	993	Mesz	ko et al. 🛶			455	219	
	AB21	1		05/1	993	Kark	ota, Jr. 🕰	<u> </u>	7	455	3.2	
	AC21	1 —			CLASS 1993							
	AD21			06/1	993	Lee	9		m	CLASS SUB-CLASS 455 219 455 3.2 375 82 455 102 381 15 455 78 375 1 375 97 CLASS SUB-CLASS TRANSLATION CLASS CLASS SUB-CLASS CLASS SUB-CLASS Yes No Yes		
-	AE21	5,22	2,144	06/1	993	Whik	ehart 2	မ	Z	381	15	
	AF21	5,23	10,097	07/1	993	Curri	e et al.	20	E	455	226.1	
	AG21	5,23	19,686	08/1	993	Dow	ney $\overset{\sim}{\sim}$	9	0	455	78	
	AH21	5,24	11,561	08/1	993	Barn	ard 6			CLASS SUB-CLASS 455 219 455 3.2 375 82 455 102 381 15 455 78 375 1 375 97 CLASS SUB-CLASS Yes No Pages, etc.) Downconversion," IEEE Transactions on Transactions on Transactions, John Wiley and Sons, Vol. 15, 121: A Schottky Diode Bridge Sampling Gate, U.S.		
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	AJ21											
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	AM21			NAME								
			OTHER	(Incl	uding Auth	or, Ti	le, Date, Per	tinent	Pages	, etc.)		
NAME			ctions on									
	AO	<u>21</u>	Satellite Mea	surem	ents," Intern	ationa	I Journal of Sa	or Clea	ar-Air S Commu	cintillation Pr inications, Jo	ediction Usir hn Wiley and	ng Olympus I Sons, Vol. 15,
	АР	<u>21</u>						l Note	1121: /	A Schottky Die	ode Bridge So	ampling Gate, U.S.
	AQ	<u>21</u>					C System," IEEE	Journ	al of So	lid-State Circ	uits, IEEE, Vo	ol. SC-22, No. 6,
	AR	21			kervision, In	c. Ann	ounces Fiscal	1993 F	Results,	Lippert/Heil	shorn and As	ssociates, 2 Pages
EXAMINER	11	_	l	-						DATE CON	SIDERED	

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ATTY. DOCKET NO.

1744.0010009

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Sorrells et al.

FILING DATE

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April 14, 2000 2681 **U.S. PATENT DOCUMENTS EXAMINER DOCUMENT** DATE NAME **CLASS** SUB-FILING DATE INITIAL NUMBER **CLASS** AA22 5,251,218 10/1993 Stone et al. 370 120 375 5 AB22 5,251,232 10/1993 Nonami AC22 5,260,970 11/1993 Henry et al. 375 10 316 11/1993 455 AD22 5,263,194 Ragan AE22 5,233,196 11/1993 Jasper 455 324 23 358 11/1993 Kawasaki AF22 5,267,023 01/1994 Murphy et al. 370 76 AG22 5,278,826 Scarpa 358 36 AH22 5,282,023 01/1994 375 88 Al22 5,287,516 02/1994 Schaub **FOREIGN PATENT DOCUMENTS EXAMINER** INITIAL **DOCUMENT NUMBER** DATE COUNTRY **CLASS** SUB-TRANSLATION CLASS AJ22 Yes No AK22 Yes No AL22 Yes No Yes **AM22** No OTHER (Including Author, Title, Date, Pertinent Pages, etc.) Press Release, "Parkervision, Inc. Announces the Appointment of Michael Baker to the New Position of AN 22 National Sales Manager," Lippert/Heilshorn and Associates, 1 Page (April 7, 1994). Press Release, "Parkervision's Cameraman Well-Received By Distance Learning Market," Lippert/Heilshorn AO <u>22</u> and Associates, 2 Pages (April 8, 1994). Press Release, "Parkervision, Inc. Announces First Quarter Financial Results," Lippert/Heilshorn and AP 22 Associates, 2 Pages (April 26, 1994). Press Release, "Parkervision, Inc. Announces The Retirement of William H. Fletcher, Chief Financial Officer," AQ 22 Lippert/Heilshorn and Associates, 1 Page (May 11, 1994). Press Release, "Parkervision, Inc. Announces New Cameraman System II™ At Infocomm Trade Show," AR 22 Lippert/Heilshorn and Associates, 3 Pages (June 9, 1994). **EXAMINER DATE CONSIDERED**

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INFORMATION DISCLOSURE STATEMENT

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ATTY. DOCKET NO. APPLICATION NO. 1744.0010009 09/550,644

APPLICANT Sorrells et al.

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2681 April 14, 2000 **U.S. PATENT DOCUMENTS** EXAMINER NAME **CLASS** SUB-FILING DATE **DOCUMENT** DATE INITIAL CLASS NUMBER **AA23** 5,293,398 03/1994 Hamao et al. 375 1 314 455 AB23 5,303,417 04/1994 Laws 306 5,307,517 04/1994 Rich 455 AC23 370 18 AD23 5,315,583 05/1994 Murphy et al. 182.1 AE23 5,321,852 06/1994 Seong 455 348 607 AF23 5,325,204 06/1994 Scarpa ତ୍ର 324 613 AG23 5,337,014 08/1994 Najle et al. 332 100 08/1994 Taguchi AH23 5,339,054 333 08/1994 Schiltz et al. 455 Al23 5,339,459 **FOREIGN PATENT DOCUMENTS EXAMINER DOCUMENT NUMBER** DATE COUNTRY **CLASS** SUB-TRANSLATION INITIAL **CLASS** Yes AJ23 No Yes AK23 No AL23 Yes No Yes **AM23** No OTHER (Including Author, Title, Date, Pertinent Pages, etc.) Press Release, "Parkervision, Inc. Announces Appointments to its National Sales Force," Lippert/Heilshorn AN 23 and Associates, 2 Pages (June 17, 1994). Press Release, "Parkervision, Inc. Announces Second Quarter and Six Months Financial Results," AO <u>23</u> Lippert/Heilshorn and Associates, 3 Pages (August 9, 1994). Press Release, "Parkervision, Inc. Announces Third Quarter and Nine Months Financial Results," ΑP 23 Lippert/Heilshorn and Associates, 3 Pages (October 28, 1994). Press Release, "Parkervision, Inc. Announces First Significant Dealer Sale of Its Cameraman® System II," AQ 23 Lippert/Heilshorn and Associates, 2 Pages (November 7, 1994). Press Release, "Parkervision, Inc. Announces Fourth Quarter and Year End Results," Lippert/Heilshorn and AR 23 Associates, 2 Pages (March 1, 1995). **DATE CONSIDERED EXAMINER**

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ATTY. DOCKET NO. 1744.0010009

APPLICATION NO. 09/550,644

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	AA24	5,35	55,114	10/1	994	Sutte	rlin et al.		1	340)	310 A	
	AB24	5,36	1,408	11/1	994	Watc	nabe et al.C	. <u>ഗ</u>	而	455	j	324	
	AC24	5,36	9,800	11/1	994	Taka	gi et al.	3 6	C	455	j	59	
	AD24	5,37	5,146	12/1	994	Chal	mers d	2 1	M	375	j	103	<u> </u>
	AE24	5,37	9,040	01/1	995	Mizo	moto et al.	\mathcal{Q}	, (341		143	
	AF24	5,37	9,141	01/1	995	Thon	ipson et al.	j '	2 6	359	,	125	
	AG24	5,38	8,063	02/1	995	Taka	ori et al.	2		364	l l	724.17	
	AH24	5,39	0,364	02/1	995	Web	ter et al.	og Og		455	5	52.3	
	Al24	5,40	0,084	03/1	995	Scar				348	3	624	<u> </u>
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	AJ24												Yes No
	AK24												Yes No
	AL24		-										Yes No
	AM24												Yes No
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	AN	<u>24</u>	Press Release Associates, 2					Product [Develop	oments	s With V	TEL," Lippe	rt/Heilshorn and
	AO	<u>24</u>	Press Releas Associates, 3				ounces First (Quarter F	inancio	al Resu	ults," Lip	pert/Heilsh	orn and
	АР	24	Press Release Manufacturii	e, "Parl ng Hed	kervision Wi adquarters, 1	ns Top 1 Page	100 Product (June 29, 19	Districts' 195).	' Choice	e Awa	rd," Park	cervision M	arketing and
	AQ	<u>24</u>					Sales Manag (July 6, 1995		Presider	nt of L	JSDLA,"	Parkervisio	n Marketing and
	AR	<u>24</u>	Press Releas 1 Page (July			anted	New Patent,"	Parkervi	sion Mo	arketir	ng and A	Aanufactur	ing Headquarters,
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FORM PTO-1449

INFORMATION DISCLOSURE STATEMENT PADEMAN

ATTY. DOCKET NO. 1744.0010009

APPLICATION NO. 09/550,644

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	AA25	-	04,127	04/1	995	Lee	et al. Te MECEL VE CEL	340	310.02	
	AB25	1	10,541	04/1	·	Hotte	SEP CO	370	76	
·	AC25		10,743	04/1		† 	ret al.	455	326	
	AD25	1 -	12,352	05/1		Grat	ref al. 9	332	103	
	AE25	+ -	16,803	05/1		Jane	1 69 27 IT		324	
	AF25		22,913	06/1			nson en O		347	
	AG25	1	23,082	06/1		1	in et al.	455	126	
	AH25	1	28,638	06/1			i et al.	375	224	
	Al25	1	28,640	06/1		Town		375	257	
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	AJ25									Yes No
	AK25		_							Yes No
	AL25									Yes No
	AM25									· Yes
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	AN	<u>25</u>					ounces Second Quarter a quarters, 2 Pages (July 31,		Financial Res	ults," Parkervision
	AO	<u>25</u>	Press Release and Manufac	e, "Par turing	kervision, In Headquart	ic. Exp ers, 2	ands Its Cameraman Syste Pages (September 22, 199	em II Product Lii 95).	ne," Parkervis	sion Marketing
	АР	<u>25</u>	Press Releas Manufacturii	e, "Par ng Hed	kervision Ar adquarters,	nnound 2 Page	tes New Camera Control 1 es (October 25, 1995).	「echnology," Pa	rkervision M	arketing and
	AQ	<u>25</u>	Press Release Parkervision	∍, "Par Marke	kervision, In ating and Mo	nc. Anr anufac	ounces Completion of VT turing Headquarters, 2 Pa	EL/Parkervision ges (October 3	Joint Produc 0, 1995).	t Line,"
	AR	<u>25</u>	Press Release Marketing a	e, "Par nd Ma	kervision, In nufacturing	ıc. Anr Heada	nounces Third Quarter and quarters, 2 Pages (October	Nine Months - 30, 1995).	Financial Res	ults," Parkervision
EXAMINER								DATE CON	SIDERED	

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INFORMATION DISCLOSURE STATEMENT

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ATTY. DOCKET NO. 1744.0010009

APPLICATION NO. 09/550,644

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Sorrells et al.

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	AA26	5,43	34,546	07/1	995	Paln	ner 3 K	TT C	332	151	J.,
	AB26	5,43	38,692	08/1	995	Moh	indra 🤵 🕽	SH	455	324	
	AC26	5,44	44,415	08/1	1995	Den	ret al.	Z	329	302	
	AD26	5,44	44,416	08/1	995	Ishik	awa et al. 🙎 🔀	m	329	341	
	AE26	5,44	44,865	08/1	995	Hec	awa et al. en 2001	0	455	86	
	AF26	5,44	46,421	08/1					332	100	
	AG26	5,44	16,422	08/1	995	Mat	ila et al.		332	103	
	AH26	5,44	18,602	09/1	09/1995		nori et al.		375	347	
	Al26	5,45	51,899	09/1	995	Law	on		329	302	
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EXAMINER INITIAL		DO	CUMENT NU	MBER	DATE		COUNTRY		CLASS	SUB- CLASS	TRANSLATION
	AJ26										Yes
	AK26	+			 				+	+	No.
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	AL26										Yes No
	AM26		•								Yes No
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	AN	<u>26</u>	Press Releas Parkervision	se, "Par n Marke	kervision's C ating and Ma	amer nufac	aman Personal Locator turing Headquarters, 2	r Camei 2 Pages	ra System V (Novembe	Vins Telecon r 1, 1995).	XV Award,"
	AO	<u>26</u>	Press Releas Marketing o	se, "Par and Mai	kervision, Ind nufacturing I	c. Ann Heada	ounces Purchase Com quarters, 1 Page (Febru	nmitmer Jary 26	nt From VTE , 1996).	EL Corporatio	n," Parkervision
	AP	<u>26</u>	Press Relea: and Manufo	se, "Par acturing	kerVision, In 1 Headquarte	c. An ers, 2	nounces Fourth Quarte Pages (February 27, 19	er and Y 996).	ear End Re	sults," Parker	vision Marketing
	AQ	<u>26</u>			kerVision, In ages (March		ands its Product Line," 96).	Parken	vision Mark	eting and Mo	ınufacturing
	AR	<u>26</u>					ents for its Research of Page (March 28, 1996		ss Technol	ogy," Parkerv	sion Marketing
EXAMINER	1	-							DATE CON	ISIDERED	
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APPLICATION NO. 09/550,644

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INFORMATION DISCLOSURE STATEMENT RADEMA PPLICANT

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EXAMINER INITIAL		DOC	CUMENT ABER	DATE		NAM			CLASS	SUB- CLASS	FILING DATE
	AA27	5,45	4,007	09/1	995	Dutte	ec	10	375	322	
	AB27	5,45	4,009	09/1	995	Fruit	et al.	XX III		202	
	AC27	5,46	3,356	10/1	995	Palm	er Og) <u> </u> [1		117	
	AD27	5,46	3,357	10/1	995	Hobo	yashi et al. at rate rate rate rate rate rate rate r		. 1337	151	
	AE27	5,46	5,071	11/1	995	Koba	yashi et al. 🚆	200	329	315	
	AF27	5,46	5,410	11/1	995	Hibe	n et al.	<u> </u>	J 455	266	
	AG27	527 5,465,415 11/1995 Bien					60		455	326	
	AH27	5,47	1,162	11/1	995	McEv	/an		327	92	
	Al27	5,47	9,120	12/1	995	McEv	/an		327	91	
					FOREIGN	I PATI	NT DOCUMENT	S			
EXAMINER INITIAL		DOC	CUMENT NUM	BER	DATE		COUNTRY		CLASS	SUB- CLASS	TRANSLATION
	AJ27				,						Yes No
	AK27										Yes No
	AL27										Yes No
	AM27										Yes No
	•	•	OTHER	(Incl	uding Auth	or, Ti	le, Date, Pertin	ent Pages	etc.)		1
,	AN	<u>27</u>	Press Release Parkervision	, "Parl Marke	cervision, Inc ting and Ma	c. Ann Inufac	ounces First Signi turing Headquart	ficant Sale ers, 2 page	of Its Camer s (April 12, 1	aman® Three 996).	e-Chip System,"
	AO	<u>27</u>					oduces New Produces New Produce			uction Marke	r," Parkervision
	АР	<u>27</u>	Press Release and Manufac	, "Parl turing	kervision, In Headquart	c. Ann ers, 1	ounces Private Pl Page (April 15, 19	acement of 196).	800,000 Sho	ares," Parkerv	ision Marketing
	AQ	<u>27</u>	Press Release Manufacturin	, "Parl g Hea	kervision, Ind adquarters, 3	c. Ann 3 Page	ounces First Qua s (April 30, 1996	rter Financ).	al Results," P	arkervision M	arketing and
	AR	<u>27</u>	Press Release Headquarter				udio Product Win).	s Award," F	arkervision A	Marketing and	l Manufacturing
EXAMINER	<u> </u>								DATE CON	SIDERED	

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INFORMATION DISCLOSURE STATEMENT AND THE STATEMENT

ATTY. DOCKET NO. 1744.0010009 09/550,644

APPLICANT Sorrells et al.

FILING DATE GROUP

<u>IN.</u>	FORMATIO	N DIS	SCLOSURE STA		EM AT.		LING DATE ril 14, 2000			GROUP 2681		
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EXAMINER INITIAL			CUMENT MBER	DAT		NAM	ec	<u>د</u> ي	CL	ASS	SUB- CLASS	FILING DATE
	AA28	+	79,447	12/1	995	Cho	v et al.	- 12	37	5	260	
	AB28	1	83,193	01/1		 	edy et al.	S IT	/ 		300	
	AC28		83,549	01/1					37	 5	200	
	AD28		83,691	01/1	996	Heck	et al. N		45	5	234.2	
	AE28	5,49	90,173	02/1	996	Whil	ehart et al	- 0	37	5	316	
	AF28	5,49	93,581	02/1	996						350	
	AG28	5,49	93,721	02/1	02/1996				45	5	339	
	AH28	5,49	95,200	02/1	02/1996		Reis Kwan et al.				554	
	Al28	5,49	95,202	02/1	02/1996				32	7	113	
					FOREIGN	I PAT	NT DOCUMENT	S				
EXAMINER INITIAL		DO	CUMENT NUM	BER	DATE		COUNTRY		CL	ASS	SUB- CLASS	TRANSLATION
	AJ28											Yes No
	AK28											Yes No
	AL28											Yes No
	AM28											Yes No
			OTHER	t (Incl	uding Auth	or, Ti	le, Date, Pertin	ent Pages	, etc.)		•	
	AN	<u>28</u>	Marketing ar	nd Mai	nufacturing	Heada	uarters, 3 Pages	(August 1,	1996).			ults," Parkervision
	AO	<u>28</u>	Press Release Marketing ar	e, "Parl nd Mai	kervision, In nufacturing	c. Ann Heada	ounces Third Qua Juarters, 2 Pages	arter and N (October 2	Nine Mo 19, 199	onths Fir 6).	nancial Res	ults," Parkervision
	АР	<u>28</u>					Vision Sign Resell s (October 30, 19		ent," Po	ırkervisi	on Marketi	ng and
	AQ	<u>28</u>	Press Release Pages (Janua			/ision	Bring Enhanced E	ase-of-Use	e to Vid	eoconfe	erencing," (CLI/Parkervision, 2
	AR	28					ounces Fourth Qu Pages (February 2		Year E	nd Resu	lts," Parker	vision Marketing
EXAMINER									DATE	CONSI	DERED	. <u> </u>

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INFORMATION DISCLOSURE STATEMENT ADEMANDE

ATTY. DOCKET NO. APPLICATION NO. 1744.0010009 09/550,644

APPLICANT Sorrells et al.

FILING DATE GROUP

2681 April 14, 2000 **U.S. PATENT DOCUMENTS EXAMINER** DOCUMENT DATE NAME **CLASS** SUB-FILING DATE INITIAL NUMBER **CLASS** 206 AA29 5,495,500 02/1996 Jovanovich et al. 🖰 375 375 206 03/1996 Ohe et al. AB29 5,499,267 0 189 AC29 5,500,758 03/1996 Thompson et al. 359 05/1996 455 333 Fajen et al. AD29 5,517,688 **AE29** 5,519,890 05/1996 **Pinckley** 455 307 क Ш 327 557 06/1996 Longo et al. AF29 5,523,719 Kroeger et al. 332 103 AG29 5,523,726 06/1996 McEwan 342 89 06/1996 **AH29** 5,523,760 375 206 07/1996 Ishigaki Al29 5,539,770 **FOREIGN PATENT DOCUMENTS EXAMINER** DOCUMENT NUMBER DATE COUNTRY **CLASS** SUB-TRANSLATION INITIAL <u>C</u>LASS AJ29 Yes No **AK29** Yes No AL29 Yes No Yes **AM29** No OTHER (Including Author, Title, Date, Pertinent Pages, etc.) Press Release, "Parkervision, Inc. Announces First Quarter Financial Results," Parkervision Marketing and AN 29 Manufacturing Headquarters, 3 Pages (April 29, 1997). Press Release, "NEC and Parkervision Make Distance Learning Closer," NEC America, 2 Pages (June 18, AO <u> 29</u> 1997). Press Release, "Parkervision Supplies JPL with Robotic Cameras, Cameraman Shot Director for Mars Mission," ΑP 29 Parkervision Marketing and Manufacturing Headquarters, 2 pages (July 8, 1997). Press Release, "ParkerVision and IBM Join Forces to Create Wireless Computer Peripherals," Parkervision AQ 29 Marketing and Manufacturing Headquarters, 2 Pages (July 23, 1997). Press Release, "ParkerVision, Inc. Announces Second Quarter and Six Months Financial Results," Parkervision AR 29 Marketing and Manufacturing Headquarters, 3 Pages (July 31, 1997). **EXAMINER DATE CONSIDERED**

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INFORMATION DISCLOSURE STATEMENT

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ATTY. DOCKET NO. 1744.0010009

APPLICATION NO. 09/550,644

APPLICANT

Sorrells et al.

FILING DATE April 14, 2000

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					U.S. P.	ATEN	DOCUM	ENTS					
EXAMINER INITIAL		DOC	CUMENT ABER	DATE	Ē	NAM	E				CLASS	SUB- CLASS	FILING DATE
	AA30	5,55	5,453	09/1	996	Kajin	noto et al.	ec	40	H	455	266	
	AB30	5,55	7,641	09/1	996	Wein	berg	hndlogy	\$5	四	375	295	
	AC30	5,55	7,642	09/1	996	Willie	ıms	00	4	Ä	375	316	
	AD30	5,57	9,341	11/1	996	Smitl	n et al.	Ĉ	و	Z	375	267	
	AE30	5,57	9,347	11/1	996	Lindo	uist et al.	<u> </u>	2001		375	346	
	AF30	5,58	4,068	12/1	996	Mohi	ndra	y Center 2600	<u>으</u>		455	324	
	AG30	5,59	2,131	01/1	997	Labre	che et al.	<u> </u>			332	103	
	AH30	5,60	2,847	02/1	997	Paga	no et al.				370	484	
	Al30	5,60	2,868				Wilson					219	
					FOREIGN	I PATI	NT DOCU	MENT	<u> </u>				
EXAMINER INITIAL		DOC	CUMENT NUM	BER	DATE		COUNTR	Y			CLASS	SUB- CLASS	TRANSLATION
	AJ30												Yes No
	AK30												Yes No
	AL30												Yes No
	AM30												Yes No
			OTHER	/Imal	uding Auth	- Ti	lo Deto	Domline	mt Da				
	AN	<u>30</u>	Press Release and Manufac Press Release Manufacturin	turing, "Wal	Headquart	ers, 2	Pages (Sep	for Bro	8, 199	97).		1 10 11 10 10 10 10 10 10 10 10 10 10 10	vision Marketing
	AP	<u>30</u>	Press Release Manufacturin							nancio	ul Results,"	Parkervision	Marketing and
	AQ	<u>30</u>	Press Release Marketing ar									ency Techno	logy," Parkervision
	AR	<u>30</u>	Press Release President, Lic Pages (Janua	ensing	g - Wireless	c. Ann Techn	ounces the ologies," Po	Appoi arkervis	ntmen ion M	t of Jo arketin	seph F. Sko ng and Mai	ovron to the l nufacturing h	Position of Vice leadquarters, 2
EXAMINER	11										DATE CON	SIDERED	

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ATTY. DOCKET NO. 1744.0010009 09/550,644

APPLICANT Sorrells et al.

FILING DATE GROUP 2681

U.S. PATENT DOCUMENTS EXAMINER DOCUMENT DATE NAME **CLASS** SUB-**FILING DATE** INITIAL NUMBER **CLASS AA31** 5,604,732 02/1997 370 342 Kim et al. AB31 5,608,531 03/1997 Honda et al. 386 1 5,610,946 03/1997 Tanaka et al. 375 269 AC31 AD31 RE 35,494 04/1997 Nicollini 327 554 AE31 5,617,451 04/1997 Mimura et al. 375 340 375 AF31 5,619,538 04/1997 Sempel et al. 328 AG31 5,621,455 04/1997 Rogers et al. 348 6 05/1997 Bella et al. 455 324 **AH31** 5,630,227 **Pandula** 375 202 AI31 5,640,415 06/1997 **FOREIGN PATENT DOCUMENTS EXAMINER** INITIAL DOCUMENT NUMBER DATE COUNTRY CLASS SUB-TRANSLATION CLASS AJ31 Yes No AK31 Yes No AL31 Yes No **AM31** Yes No OTHER (Including Author, Title, Date, Pertinent Pages, etc.) Press Release, "Parkervision Announces Existing Agreement with IBM Terminates-- Company Continues with 31 AN Strategic Focus Announced in December," Parkervision Marketing and Manufacturing Headquarters, 2 Pages (January 27, 1998). Press Release, "Laboratory Tests Verify Parkervision Wireless Technology," Parkervision Marketing and AO 31 Manufacturing Headquarters, 2 Pages (March 3, 1998). Press Release, "Parkervision, Inc. Announces Fourth Quarter and Year End Financial Results," Parkervision ΑP <u>31</u> Marketing and Manufacturing Headquarters, 3 Pages (March 5, 1998). Press Release, "Parkervision Awarded Editors' Pick of Show for NAB 98," Parkervision Marketing and AQ <u>31</u> Manufacturing Headquarters, 2 Pages (April 15, 1998). Press Release, "Parkervision Announces First Quarter Financial Results," Parkervision Marketing and AR 31 Manufacturing Headquarters, 3 Pages (May 4, 1998). **EXAMINER DATE CONSIDERED**

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ATTY. DOCKET NO.

APPLICATION NO. 09/550,644

APPLICANT

INFORMATION DISCLOSURE STATEMENT

Sorrells et al.

April 14, 2000

FILING DATE

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EXAMINER INITIAL			CUMENT MBER	DAT	Ē	NAM	Æ			CLASS	SUB- CLASS	FILING DATE
	AA32	5,64	10,424	06/1	997	Banc	vong et al			375	316	
	AB32		10,428	06/1		Abe			n	375	334	
	AC32		10,698	06/1		Sher	et al.		n	455	323	
	AD32	1	18,985	07/1		Bjere	de et al.	2 2 (Q	375	219	
	AE32	$\overline{}$	50,785	07/1	997	Rodo	ı	9 1	四	342	357	
	AF32	_	51,424	08/1	997	Tang		\sim	m	327	105	
-	AG32	1	33,878	09/1		Walk		200'		363	159	
_	AH32	1	33,986	09/1		Striff	ler	26		375	260	
	Al32		8,836	09/1		1 —	n et al.	72600		375	316	
		1	,				ENT DOC					
EXAMINER INITIAL		DOG	CUMENT NUM	BER	DATE		COUNTR			CLASS	SUB- CLASS	TRANSLATION
	AJ32											Yes No
	AK32											Yes No
	AL32											Yes No
	AM32											Yes No
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	AN	32	Marketing ar	nd Mai	nufacturing	Heada	juarters, 3	oduced in Res Pages (July 9,	1998).	•		arkervision
	AO	32	Headquarter					nagement lea	im," ra	rkervision	marketing a	na Manutacturing
	AP	<u>32</u>						Quarter and S Pages (July 30			ial Results," I	Parkervision
	AQ	<u>32</u>	Press Release Marketing ar	e, "Par nd Mai	kervision An nufacturing	nound Headd	es Third G Juarters, 3	tuarter and Nii Pages (Octobe	ne Mor er 30, 1	nth Financ 1998).	ial Results," F	Parkervision
	AR	32						\$5 Million in P Pages (Decem			mon Stock,"	Parkervision
EXAMINER			1						D.	ATE CON	SIDERED	
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INFORMATION DISCLOSURE STATEMENT OF ADEMARATOR

ATTY. DOCKET NO. 1744.0010009

APPLICATION NO. 09/550,644

APPLICANT

Sorrells et al.

FILING DATE April 14, 2000

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EXAMINER INITIAL			CUMENT	DAT	E	NAM			CLASS	SUB- CLASS	FILING DATE
	AA33	5,68	80,078	10/1	997	Ariie	Technology SEP	20	332	178	
	AB33	5,68	80,418	10/1	997	Crof	hmold SEP	EC	375	346	
	AC33	5,68	89,413	11/1	997	Jara	millo et al. 🥝 🗀	$\overline{}$	363	146	
	AD33	5,69	99,006	12/1	997		et al. 😭 📽	7	327	341	
	AE33	5,70	05,955	01/1	998	Free	burg et al. to	m	331	14	
	AF33	5,7	10,998	01/1	998	Opa	r 20		455	324	
	AG33	5,7	14,910	02/1	998	Skoc	zen et al.		331	3	·
	AH33	5,7	15,281	02/1	998 •	Bly e			375	344	
	Al33 5,721,514			02/1998			kett et al.		331	3	
	•		•	•	FOREIGN	N PAT	ENT DOCUMENTS				• • • • • • • • • • • • • • • • • • •
EXAMINER INITIAL		DO	CUMENT NUM	BER	DATE		COUNTRY		CLASS	SUB- CLASS	TRANSLATION
	AJ33										Yes No
	AK33										Yes No
	AL33										Yes No
	AM33										Yes No
<u> </u>			OTHE	(Inc	uding Auth	or. Ti	tle, Date, Pertinen	t Pages	. etc.)		
	AN	<u>33</u>	Press Release Headquarter				o New Directors," Pc 99).	ırkervisio	on Marketing	and Manufa	acturing
	AO	<u>33</u>	Press Release Marketing ar	e, "Par nd Ma	kervision An nufacturing	nound Headd	es Fourth Quarter o juarters, 3 Pages (M	ind Year arch 5,	End Financia 1999).	al Results," Po	arkervision
	АР	<u>33</u>					ement Offers New A Juarters, 2 Pages (Al			Solution," Po	arkervision
	AQ	<u>33</u>	"Project COS Vol. LIV, No.	T 205 3, pp	: Scintillatio 209-211 (<i>I</i>	ns in E May-Ju	arth-satellite links," ine, 1985).	Alta Fred	quenza: Scier	ntific Review i	in Electronics, AEI,
	AR	<u>33</u>	Razavi, B., RI	F Micro	pelectronics,	Prent	ice-Hall, pp. 147-14	9 (1998	,		
EXAMINER			<u> </u>						DATE CON	SIDERED	·
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EXAMINER INITIAL			CUMENT MBER	DATI	E	NAM	雪 点 岩		CLASS	SUB- CLASS	FILING DATE
-	AA34	5,72	24,002	03/1	998	Hulic)	329	361	
	AB34	5,72	24,653	03/1	998	Baker	et al. S	7	455	296	
	AC34	5,72	29,577	03/1	998	Chen	4 9 4		375	334	
	AD34	1	29,829	03/1	998	Talwa	t al.	13	455	63	
	AE34	1	32,333	03/1	998	Cox e	t al.		455	126	
	AF34	5,73	36,895	04/1	998	Yu et	al. B		327	554	
	AG34	5,73	37,035	04/1	998	Rotzoll			348	725	
	AH34	5,74	12,189	04/1998		Yoshi	da et al.		327	113	
	Al34	5,74	18,683	05/1	998	Smith	et al.		375	347	
					FOREIGN	N PATE	NT DOCUMENTS				
EXAMINER NITIAL		DOG	CUMENT NUM	BER	DATE		COUNTRY		CLASS	SUB- CLASS	TRANSLATION
	AJ34										Ye N
	AK34		· •···				"		1		Ye
	AL34			-							Ye
	AM34					-					Ye
											N
	AN	34	Brothers Lim	ited, V	/gl. 31, No. :	373, pį	o. 130-137 (March 195	9).			
	AO	<u>34</u>					ollocation of Waveform 5. 204-212 (April 1959		2)," Electro	nic Engineeri	ng, Morgan
	AP	34	Rein, H.M. a Transistors,"	nd Zal Electro	nn, M., "Sub pnics Letters,	nanose , IEE, Ve	cond-Pulse Generator ol. 11, No. 1, pp. 21-23	with V 3 (Janu	ariable Puls uary 9, 197	sewidth Using 5).	g Avalanche
	AQ	34	Riad, S.M. ar IEEE MTT-S I	nd Nal nterna	hman, N.S., tional Micro	"Mode wave S	ling of the Feed-throug ymposium Digest, IEEE,	h Wid pp. 2	eband (DC 67-269 (Jui	to 12.4 Ghz) ne 27-29, 19	Sampling-Head,' 78).
	AR	34					ise Analysis of MESFET EE, Vol. 37, No. 9, pp.				
EXAMINER									DATE CON	SIDERED	

U.S. PATENT DOCUMENTS

Page	35	οf	51
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EXAMINER INITIAL		DOCUMENT NUMBER	DAT		NAME			,	CLASS	SUB- CLASS	FILING DATE
	AA35	RE 35,829	06/1	998	Sanderford	d, Jr			375	200	
	AB35	5,760,645	06/1	998	Comte et d	ecano		70	329	304	
	AC35	5,764,087	06/1	998	Clark	370	- 61	ता	327	105	
	AD35	5,767,726	06/1		Wang	ogv			327	356	
·	AE35	5,768,118	06/1	998	Faulk et al	<u> </u>	_	=	363	72	
	AF35	5,771,442	06/1	998	Wang et a	1. 3	21	m	455	93	
	AG35	5,777,692	07/1		Ghosh		2001	0	348	725	
	AH35	5,777,771	07/1							180	
·····	Al35	5,786,844			Rogers et	 8			359 348	6	
	Al35 5,786,844 07/1998 Rogers et al. 3.										
EXAMINER INITIAL		DOCUMENT	NUMBER	DATE		JNTRY			CLASS	SUB- CLASS	TRANSLATION
	AJ35										Yes No
	AK35										Yes No
	AL35										Yes No
	AM35								_		Yes No
		o	THER (Incl	uding Auth	or, Title, D	ate, Perti	nent F	Pages,	etc.)		
	AN	Jersey,	including, f	or example,	Chapter V,	Pulse Mod	lulatior	n Syster	ms (1965).		, Princeton, New
	AO	35 Rocker, Depend	lence," Elec	tronics Letter	rs, IEE, Vol.	19, No. 24	f, pp. 1	032-1	034 (Novem	ber 24, 198	3).
	AP								ors," Military October 25-		'78 Conference
	AQ	35 Commu	inications,"	Implemento The Institution 223 (Octob	on of Engine	ers Austra	ble Rec lia Con	eiver/[nmunic	Demultiplexe cations Confe	er for Broadc erence, Instit	ast Data Satellite ution of Engineers
	AR			al generatio Vol. 139, N					d channel cl	haracterizati	on," IEE
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							T DOCUMENTS					
EXAMINER INITIAL			CUMENT MBER	DATI		NAM	NE	CLASS	SUB- CLASS	FILING DATE		
	AA36	5,79	23,801	08/1	998	Fertn		375	219			
	AB36	5,79	23,818	08/1	998	Clay	don et al.	375	326			
	AC36	5,80	02,463	09/1	998	Zuck	erman 🥰 💆	455	208			
-	AD36		09,060	09/1	998	Cafa	rella et al. 😥 😕 🕅	375	206			
	AE36		8,582	10/1	998	Fern	andez et al. 👸 🔉 🤇	356	318			
	AF36	1	25,254	10/1	998	Lee		331	25			
	AG36	5,83	34,985	11/1	998	Sund	20 0 III	332	100			
	AH36		54,754	01/1		Hotte		455	280			
	Al36		31,375	03/1		Bond	ls	455	118			
	1	1 - /	.,,				ENT DOCUMENTS			l.		
EXAMINER INITIAL		DOG	CUMENT NUM	BER	DATE		COUNTRY	CLASS	SUB- CLASS	TRANSLATION		
	AJ36									Yes No		
	AK36									Yes No		
	AL36									Yes No		
	AM36									Yes No		
			OTHER	(Incl	uding Auth	or, Tit	tle, Date, Pertinent Pages,	etc.)				
	AN	<u>36</u>	"Sampling Lo	ops Lo	ock Sources	to 23 (Ghz," <i>Microwaves & RF</i> , Pento	n Publishing	յ, p. 212 (Sep	otember 1990).		
	AO	<u>36</u>	Sasikumar, A Vol. 71, No.	1. et ai 8, pp.	., "Active Co 1008-1009	mpen (Augu	sation in the Switched-Capac ust 1983).	itor Biquad,	" Proceedings	of the IEEE, IEEE,		
	AP	<u>36</u>	Saul, P.H., "A ESSCIRC 79,	GaAs IEE, p	: MESFET Sa 5. 5-7 (1979	mple o	and Hold Switch," Fifth Europe	an Solid Sta	te Circuits Co	onference-		
	AQ	Shen, D.H. et al., "A 900-MHZ RF Front-End with Integrated Discrete-Time Filtering," IEEE Journal of Solid-State Circuits, IEEE Solid-State Circuits Council, Vol. 31, No. 12, pp. 1945-1954 (December 1996).										
	AR	<u>36</u>	Shen, X.D. ai path," <i>Radio</i> : 1995).	nd Vilc Scienc	ır, E., "Anom e, American	ialous Geop	transhorizon propagation and hysical Union, Vol. 30, No. 5,	d meteorolo , pp. 1467-1	gical process 1479 (Septen	ses of a multilink nber-October		
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ATTY. DOCKET NO. 1744.0010009

APPLICATION NO. 09/550,644

APPLICANT

Sorrells et al.

GROUP 2681

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EXAMINER INITIAL			CUMENT MBER	DAT	E	NAM			CLASS	SUB- CLASS	FILING DATE
	AA37	_	92,380	04/1	999	Quis	Tech	, D	327	172	
	AB37	1	94,239	04/1		Bono		\neg \square	327	176	
	AC37		96,562	04/1	999	•	- 5	- H	455	76	
	AD37	+	00,747	05/1	999	Brau	ns C	ح و	327	9	
	AE37	_	01,054	05/1	999	Leu e	et al.	2 E	363	41	
	AF37	5,9	01,187	05/1	999 linuma 3 9 0 1					347	
	AG37	5,9	01,344	05/1	999	Opa	٠,		455	76	
	AH37	5,9	01,347	05/1	999	Char	nbers et al.		455	234.1	
	Al37	5,9	01,348	05/1	999	Bang	et al.		455	254	
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EXAMINER INITIAL		DO	CUMENT NUM	BER	DATE		COUNTRY		CLASS	SUB- CLASS	TRANSLATION
	AJ37										Ye:
	AK37										Ye:
	AL37										Yes No
	AM37										Yes No
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	AN	<u>37</u>	Shen, X. and Mechanisms	Tawfi " Elect	k, A.N., "Dyi ronics Letter	namic s, IEE,	Behaviour of Radi Vol. 29, No. 17, p	io Channel pp. 1582-1	s Due to Tra 583 (August	ns-Horizon P 19, 1993).	ropagation
	AO	<u>37</u>	aid of the pa	raboli	c Equation o	ınd Ra	Spherical Diffraction y Tracing Methods c wave propagation	s," IEE Colle	quium on Č	ommon mod	eling techniques
	AP	<u>37</u>	Shen, X. and Electronics Le	Vilar, etters,	E., "Path los IEE, Vol. 32,	ss stati , No. 3	stics and mechani , pp. 259-261 (Fe	sms of tran bruary 1, 1	nshorizon pro 1996).	pagation ov	er a sea path,"
	Shen, D. et al., "A 900 MHZ Integrated Discrete-Time Filtering RF Front-End," IEEE International Solid Scircuits Conference, IEEE, Vol. 39, pp. 54-55 and 417 (February 1996).										
	AR	<u>37</u>	Spillard, C. e Conditions," pp. 451-455	Sixth I	nternational	Confe	ric Transhorizon F Prence on Antenna	Propagation is and Prop	n Under Diffe agation (ICA	ering Meteor P 89) Part 2:	ological Propagation, IEE,
EXAMINER			<u> </u>						DATE CON	SIDERED	<u> </u>

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	AA38	5,90	1,349	05/1	999		gnaud et al.			455	302	
	AB38	5,90	3,178	05/1	999		tsuji et al.		\mathfrak{D}_{-}	327	308	
	AC38	5,90	3,187	05/1	999	Clav	erie et al. 3	· · · · · · · · · · · · · · · · · · ·	\Box	329	342	·
	AD38	5,90	3,196	05/1	999	Salvi	et al.	<u> </u>	#	331	16	
	AE38	5,90	3,421	05/1	999	Furu	tani et al.	စ	=	361	58	
	AF38	5,90	3,553	05/1	999	Saka	moto et al.	200	面	370	338	
	AG38	5,90	3,595	05/1	999	Suzu			<u>0</u>	375	207	
	AH38	5,90	3,609	05/1	999	Kool	et al.			375	261	
	AI38	5,90	3,827	05/1	999	Kenr	an et al.			455	326	
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EXAMINER INITIAL	: !	DOG	CUMENT NUM	BER	DATE		COUNTRY			CLASS	SUB- CLASS	TRANSLATION
	AJ38											Yes No
	AK38											Yes No
	AL38											Yes No
	AM38											Yes
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	AN	<u>38</u>	Stafford, K.R. IEEE, Vol. SC	. et al. -9, No	, "A Comple o. 6, pp. 381	te Moi -387	nolithic Sample, (December 197	/Hold An (4).	nplifie	er," IEEE Jour	nal of Solid-S	State Circuits,
	AO	<u>38</u>	Staruk, W. Jr 211, 213, 21	. et al. 5, 21	, "Pushing H 7, 220 and 2	IF Dat 222 (A	a Rates," Defens Nay 1985).	se Electro	nics,	EW Commu	nications, Vo	l. 17, No. 5, pp.
	AP	<u>38</u>	Stephenson, Hill, pp. 106	A.G., -110 ("Digitizing n March 27, 1	nultipl 972).	e RF signals req	uires an	optin	num samplin	ng rate," Elect	ronics, McGraw-
	AQ 38 Sugarman, R., "Sampling Oscilloscope for Statistically Varying Pulses," The Review of Scientific Instruments, American Institute of Physics, Vol. 28, No. 11, pp. 933-938 (November 1957).											
	AR	<u>38</u>	Sylvain, M., " Union, Vol. 2	Experi 24, No	mental prob . 2, pp. 160	oing of -178 (multipath micr March-April 19	owave ch 89).	nanne	els," Radio Sc	cience, Ameri	can Geophysical
EXAMINER						_				DATE CONS	SIDERED	

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EXAMINER INITIAL		DOCUMENT NUMBER	DAT		NAM			CLASS	SUB- CLASS	FILING DATE
	AA39	5,903,854	05/1	1999	Abe	et al. 👼		455	575	
	AB39	5,905,449	05/1	1999	Tsub	ouchi et ale	<u>, , , , , , , , , , , , , , , , , , , </u>	340	925.69	
	AC39	5,907,149	05/1	999	Marc	kini S T	יוון י	235	487	
	AD39	5,907,197	05/1	999	Faull	1 gy		307	119	
	AE39	5,911,116	06/1	999	Noss	witz 6 4	<u> </u>	455	83	
	AF39	5,911,123	06/1	999	Shaff		3 ===	455	554	
	AG39	5,914,622	06/1	999	Inou	eretal. 60 C	2 0	327	172	
	AH39	5,920,199	07/1		Saue	2600		324	678	
	Al39	5,943,370	08/1	999	Smith			375	334	
		·			N PATE	NT DOCUMENTS	S			
EXAMINER INITIAL		DOCUMENT NU	MBER	DATE		COUNTRY		CLASS	SUB- CLASS	TRANSLATION
	AJ39									Ye
	AK39			<u> </u>						Ye
	AL39									Ye
	AM39									Ye
	1	ОТН	ER (Incl	uding Auth	nor, Tit	le, Date, Pertine	ent Pages	, etc.)		
	AN	39 Takano, T., (1984).	"NOVE	L GaAs Pet I	Phase I	Detector Operable	e To Ka Ba	nd," IEEE MT-	S Digest, IEE	E, pp. 381-383
	AO	Tan, M.A., 39 Systems- I: 275 (April	Fundan	ratic Transco nental Theory	onducto y and A	ance Switched-Ca Applications, IEEE	pacitor Filt Circuits an	ters," IEEE Tra d Systems So	insactions on ciety, Vol. 40	Circuits and), No. 4, pp. 272-
	АР	39 Tanaka, K. Electronics,	et al., ": IEEE Co	Single Chip onsumer Ele	Multisy ctronic	stem AM Stereo E s Society, Vol. CE-	Decoder IC -32, No. 3	," IEEE Transc , pp. 482-496	actions on Co 6 (August 19	onsumer 86).
	AQ	39 Tawfik, A.N Sea," Electro	l., "Amp onics Le	litude, Dura tters, IEE, Vo	ition ar ol. 28,	nd Predictability of No. 6, pp. 571-57	f Long Hop 72 (March	Trans-Horiz 12, 1992).	on X-band S	ignals Over the
	AR	39 Meteorolog	ical Par	ameters," Ei	ghth In	n of Transhorizon ternational Confe ch 30- April 2, 19	rence on A			
EXAMINER								DATE CON	SIDERED	

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	AA40	+	7,798	04/1	977	Gor	dy et al.	325	42		
	AB40	4,03	32,847	06/1	977	Unk	dy et al., auf et :s II	325	323	3	
	AC40	Ť T	53,067	02/1	981	Сар	les et de S	329	110)	
	AD40	1	93,395	07/1	983	ke et al. Q	358	23			
-	AE40	4,81	6,704	03/1	989	Fiori	, Jr.	307	519)	
	AF40	4,84	11,265	06/1	989	Wat	anabe et a	333	194	ļ	
	AG40	4,94	13,974	07/1	990		amedi 72	375	1		
	AH40	5,11	5,409	05/1	992	Step	p 8	364	841		
	Al40	5,35	3,306	10/1	994	Yam	amoto	375	14		
					FOREIGN	PAT	ENT DOCUMENTS				
EXAMINER INITIAL		DOG	CUMENT NUM	BER	DATE		COUNTRY	CLA	SS SUE		TRANSLATION
	AJ40										Ye:
	AK40										Yes
	AL40				, <u> </u>						Yes No
	AM40							1			Yes No
			OTHE) /lmsl	udina Auth	or T	l itle, Date, Pertinent Pages,	000)			i inc
	AN	<u>40</u>	International 4-7, 1989)	Confe	erence on An	tenno	Structure of a Transhorizon S is and Propagation (ICAP 89)	Part 2: I	Propagation	, IEE, _F	pp. 446-450 (Apri
	AO	<u>40</u>	Tawfik, A.N. Path," <i>Electro</i>	and V	ilar, E., "Stat etters, IEE, V	istics ol. 26	of Duration and Intensity of P , No. 7, pp. 474-476 (March	ath Los 29, 199	s in a Micro 90).	wave 1	ranshorizon Sea-
	АР	<u>40</u>	Path Loss, Du	Jration	n of Events, o	and T	ranshorizon Measurements of heir Modeling," <i>IEEE Transacti</i> /ol. 41, No. 11, pp. 1491-15	ons on .	Antennas ar	nd Prop	
	AQ	<u>40</u>	Temes, G.C. IEEE, Vol. 71				ecial Section on Switched-Ca ugust 1983).	pacitor	Circuits," Pr	oceedi	ngs of the IEEE,
	AR	<u>40</u>	Thomas, G.B (1960).	., Calc	ulus and An	alytic	Geometry, Third Edition, Add	ison-W	esley Publish	hing, p	p. 119-133
EXAMINER			I					DATE (CONSIDERE	D	
EXAMINER: I	nitial if ref	erence	considered, v	vhethe	er or not cita	tion is	s in conformance with MPEP 6 t communication to Applicant	09. Dr	aw line thro	ough ci	tation if not in

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	AA41	5,51	5,014	05/1		Trou	lman		332	178	
	AB41	5,56	3,550	10/1	996	Toth	Technology lis et al.		329	347	ļ
	AC41	5,57	4,755	11/1	996	Persi	e chi SE	<u>m</u> :	375	295	
	AD41	5,60	14,592	02/1	997	Kotic	lis et al. 9	-(1) +	356	357	
	AE41	5,63	8,396	06/1	997	Klim	ek E		372	92	
·	AF41	5,67	5,392	10/1	997	Naye	roku et al. 6	<u>m 1</u>	348	584	
	AG41	5,69	4,096	12/1	997	Ushi	roku et al. 60 20	0 3	333	195	
	AH41	5,75	7,870	05/1	998	Miya	et al. 26 ger et al. 00	3	375	367	
	Al41	5,76	8,323	06/1	998	Kroe	ger et al. 8		375	355	
<u> </u>					FOREIGN	V PAT	ENT DOCUMENTS				
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	AJ41								***		Yes
	AK41										No Yes No
	AL41										Yes No
·	AM41	ļ									Yes No
	•	•	OTHE	R (Incl	uding Auth	nor, Ti	tle, Date, Pertinent	Pages, etc	.)		
	AN	<u>41</u>					ave Mixer," <i>16th Europ</i> aber 8-12, 1986).	ean Microw	rave Conf	erence, Micr	owave Exhibitions
	AO	<u>41</u>	Transactions	on Ult	rasonics, Fe	rroeled	er Signal Analysis Bas strics, and Frequency No. 1, pp. 1-3 (Janua	Control, IEE			
	AP	<u>41</u>	Tsividis, Y. a 304 (1985).	nd Ant	ognetti, P. (Ed.), <i>C</i>	esign of MOS VLSI Ci	rcuits for Te	lecommu	nications, Pr	entice-Hall, p.
	AQ	<u>41</u>					and Analysis of Switch ugust 1983).	ned-Capacit	or Circuit	s," Proceedir	ngs of the IEEE,
	AR	<u>41</u>	MHZ, and 2	6 Ghz	Band Radio	Comi	Study on a Direct Cor munication Systems," 7-462 (May 19-22, 1	41st IEEE Ve			
EXAMINER			<u> </u>			-		DA	TE CONS	SIDERED	
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FILING DATE April 14, 2000 2681 **U.S. PATENT DOCUMENTS EXAMINER CLASS** SUB-FILING DATE NAME INITIAL DOCUMENT DATE $\widetilde{\mathbb{D}}$ **CLASS** NUMBER 5,770,985 06/1998 Ushiroku et al. \mathbf{C} 333 193 **AA42** Π 5,778,022 375 206 AB42 07/1998 Walley 09/1998 Zhou et al. 370 342 AC42 5,812,546 375 206 AD42 10/1998 Miya et al. 5,818,869 12/1998 Abeno et al. 332 105 AE42 5,844,449 315 Cranford, Jr. et al. 323 AF42 02/1999 5,872,446 370 508 AG42 5,909,447 06/1999 Cox et al. 375 350 AH42 08/1999 Sehier et al. 5,933,467 332 128 09/1999 McCune, Jr. et al. **AI42** 5,952,895 **FOREIGN PATENT DOCUMENTS EXAMINER** CLASS SUB-TRANSLATION COUNTRY INITIAL **DOCUMENT NUMBER** DATE CLASS AJ42 Yes Nο AK42 Yes No Yes AL42 No Yes AM42 No OTHER (Including Author, Title, Date, Pertinent Pages, etc.) Valdamanis, J.A. et al., "Picosecond and Subpicosend Optoelectronics for Measurements of Future High AN <u>42</u> Speed Electronic Devices," IEDM Technical Digest, IEEE, pp. 597-600 (December 5-7, 1983). van de Kamp, M.M.J.L., "Asymmetric signal level distribution due to tropospheric scintillation," *Electronics* AO <u>42</u> Letters, IEE, Vol. 34, No. 11, pp. 1145-1146 (May 28, 1998). Vasseur, H. and Vanhoenacker, D., "Characterization of tropospheric turbulent layers from radiosonde data," ΑP 42 Electronics Letters, IEE, Vol. 34, No. 4, pp. 318-319 (February 19, 1998). Verdone, R., "Outage Probability Analysis for Short-Range Communication Systems at 60 Ghz in ATT Urban Environments," IEEE Transactions on Vehicular Technology, IEEE Vehicular Technology Society, Vol. 46, No. 4, AQ <u>42</u> pp. 1027-1039 (November 1997). Vierira-Ribeiro, S.A., Single-IF DECT Receiver Architecture using a Quadrature Sub-Sampling Band-Pass Sigma-Delta Modulator, Thesis for Degree of Master's of Engineering, Carleton University, UMI Dissertation AR 42 Services, pp. 1-180 (April 1995).

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APPLICATION NO. ATTY. DOCKET NO. 1744.0010009 09/550,644 APPLICANT

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FILING DATE April 14, 2000 GROUP 2681

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*	AA43	5,960	0,033	09/1	999	Shibo	ino et al.			375	207	
	AB43	6,04	1,073	03/2	000	Davidovici et al.			375	148	·	
	AC43	6,054	4,889	04/2	000	Kobo	yashi		327	357	11/11/1997	
•	AD43	6,084	4,922	07/2	000	Zhou	et al.			375	316	04/16/1998
	AE43	6,12	5,271	09/2	000	Rowl	and et al.			455	313	03/06/1998
	AF43		7,340	11/2	000	Levy				250	214 R	09/29/1998
	AG43	6,147	7,763	11/2	000	Stein	lechner			356	484	12/27/1999
	AH43		0,890	11/2	000	Dam	gaard et al.			331	14	09/30/1998
	Al43		6,682	06/1	992		berg et al.			329	304	
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	AJ43						logy	<u></u>	ECE			Yes No
	AK43)ente	9 2	<			Yes No
	AL43						r 260	001	<u>E</u> D			Yes No
	AM43						O)					Yes No
	•		OTHER	(Incl	uding Auth	or, Ti	le, Date, Pertin	ent Po	iges,	etc.)		
	AN	<u>43</u>	Vilar, E. et al. Tenth Interna (April 14-17,	tional	Conference	ive/\$el on An	ective MM-Wave tennas and Propo	Satelli igation	te Do , Elec	wnlink Experi tronics Divisio	ment on Fac on of the IEE	de Dynamics," E, pp. 2.98-2.101
	AO	<u>43</u>	Vilar, E. et al. Proceedings i pp. 8-1 - 8-1	No. 34	6: Characte	ristics	LOS Atmospheric of the Lower Atmo	: Trans ospher	mittar e Influ	nce at 19 Ghz vencing Radio	:," AGARD C Wave Prop	onference agation, AGARD,
	АР	<u>43</u>					and Experiments opagation, IEEE,					arth Space Paths," 1986).
	AQ	<u>43</u>					rizon Experiment s Division of the					
	AR	<u>43</u>	Vilar, E. and Vol. 8, No. 2	Matth 0, pp.	ews, P.A., "A 509-511 (C	Amplitu Octobe	ude Dependence r 5, 1972).	of Fred	quenc	/ in Oscillato	rs," Electroni	cs Letters, IEE,
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TRADEMAN FILING DATE April 14, 2000 2681 **U.S. PATENT DOCUMENTS EXAMINER DOCUMENT** DATE NAME **CLASS** FILING DATE INITIAL SUB-NUMBER **CLASS AA44** 5,841,811 11/1998 375 235 Song П AB44 4,051,475 09/1977 Campbell 343 180 AC44 5,953,642 09/1999 Feldtkeller et al. 455 195.1 Heck 455 AD44 4,653,117 03/1987 209 AE44 5,859,878 01/1999 Phillips et al. 375 316 AF44 04/1999 Jones 455 126 5,894,496 Mallick 73 AG44 5,915,278 06/1999 658 375 206 AH44 02/2000 Harrison et al. 6,028,887 06/2000 Renard et al. 455 12.1 04/14/1998 Al44 6,081,691 **FOREIGN PATENT DOCUMENTS EXAMINER** INITIAL DOCUMENT NUMBER DATE COUNTRY **CLASS** SUB-TRANSLATION CLASS AJ44 No AK44 Yes No AL44 Yes No **AM44** Yes No OTHER (Including Author, Title, Date, Pertinent Pages, etc.) Vilar, E. et al., "An experimental mm-wave receiver system for measuring phase noise due to atmospheric AN 44 turbulence," Proceedings of the 25th European Microwave Conference, Nexus House, pp. 114-119 (1995). Vilar, E. and Burgueño, A., "Analysis and Modeling of Time Intervals Between Rain Rate Exceedances in the Context of Fade Dynamics," *IEEE Transactions on Communications*, IEEE Communications Society, Vol. 39, AO 44 No. 9, pp. 1306-1312 (September, 1991). Vilar, E. et al., "Angle of Arrival Fluctuations in High and Low Elevation Earth Space Paths," Fourth ΑP <u>44</u> International Conference on Antennas and Propagation (ICAP 85), Electronics Division of the IEE, pp. 83-88 (April 16-19, 1985). Vilar, E., "Antennas and Propagation: A Telecommunications Systems Subject," Electronics Division AQ <u>44</u> Colloquium on Teaching Antennas and Propagation to Undergraduates, IEE, pp. 7/1-7/6 (March 8, 1988). Vilar, E. et al., "CERS*. Millimetre-Wave Beacon Package and Related Payload Doppler Correction Strategies," Electronics Division Colloquium on CERS- Communications Engineering Research Satellite, IEE, pp. AR 44 10/1-10/10 (April 10, 1984). **EXAMINER DATE CONSIDERED**

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	AA45	6,121,8	19 09	9/2	000	Tray	or 9	1	327	359	04/06/1998
	AB45	6,144,23	36 10	0/2	000	Vice	et al. Compared to the compare	TO TO	327	113	02/01/1998
	AC45	6,144,84	46 1	1/2	000	Dure	et al. Contact	0	455	323	12/31/1997
	AD45	6,175,72	28 B1 0	1/2	001	Mita	unas et al.		455	323	03/03/1998
	AE45	5,705,94	19 0	1/1	998	Alely	unas et al. 💍		329	304	
	AF45	5,883,54	48 0:	3/1	999	Assa	rd et al.		329	306	
	AG45	4,484,14	43 1	1/1	984	Fren	ch et al.	_	329	50	
	AH45	5,841,32	24 1	1/1	998	Willi	ams		331	17	
	Al45	4,855,89			989	Asah	i et al.		363	157	
	<u> </u>	 			FOREIGN	N PAT	NT DOCUMENTS				
EXAMINER INITIAL		DOCUM	ENT NUMBER	R	DATE		COUNTRY		CLASS	SUB- CLASS	TRANSLATION
	AJ45										Yes No
	AK45										Yes No
	AL45						*****				Yes No
	AM45										Yes
		<u> </u>	OTHER (I			T	le, Date, Pertinen	4 D			No.
	AN						nt and Reply: Probab 4, pp. 620-622 (Jul			of Amplitud	e Scintillations,"
	AO						ıll Rate Duration Dis 2-1924 (September			and Barcelor	na," Electronics
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	AQ	45 Pai	ar, E. and Lar ths," Sixth Inte 0–154 (April	erno	itional Conf	ation [ference	Dependence of Amp on Antennas and P	litude Sc ropagati	intillations or on (ICAP 89)	n Low Elevati Part 2: Propo	on Earth Space agation, IEE, pp.
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	АР	<u>46</u>	Vilar, E. and Electronics Le	Matth etters,	ews, P.A., "N IEE, Vol. 7, N	Neasur No. 18	rement of Phase Fluctuations s, pp. 566-568 (September 9	on M , 197	illimetri I).	c Radiowave	e Propagation,"			
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ATTY. DOCKET NO. 1744.0010009

APPLICATION NO. 09/550,644

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	AO	47 (Barcelond	ı) and Tı	ropical (Belei	m) Reg	tion: Dependence Upon R gions," Tenth International 230-2.233 (April 14-17, 1	Conference on .	stribution in Antennas an	Temperate d Propagation,
	AP	47 AGARD Co	onferenc	e Proceeding	as No.	n Modeling and Measuren 332: Propagation Aspects (October 18-22, 1982).	nent - A Tool fo of Frequency Si	r Remote-Se haring, Interl	nsing Slant Paths," Ference And System
	AQ	Vilar, E., "(Conference 1975).	Some Lii e on Sai	mitations on tellite Comm	Digito	al Transmission Through T ion Systems Technology, El	urbulent Atmosp ectronics Division	ohere," <i>Interi</i> on of the IEE	national (April 7-10,
	AR	Vilar, E. ar Internation 30, 1978)	nal Conf	news, P.A., "S ference on Ai	Summ	ary of Scintillation Observers as and Propagation Part 2:	ations in a 36 C Propagation, IE	hz Link Acro E, pp. 36-40	oss London,") (November 28-
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APPLICATION NO.
1744.0010009

APPLICANT
Sorrells et al.

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	AO	<u>48</u>	Vollmer, A., and 56 (July			eceive	Fits on Two Chips," E	ilectronic	: Design, Pe	nton Publish	ing, pp. 50, 52, 54		
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INFORMATION DISCLOSURE STATEMENT

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ATTY. DOCKET NO. APPLICATION NO. 1744.0010009 09/550,644

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	АР	<u>49</u>	Watson, A.W Receivers, D 367-373 Apr	igital l	Processing o	f Signo	ersion and Si als in Commu	gnal I unicat	Processing ions, Institu	for High Per ation of Elec	formance Co tronic and Ra	mmunications dio Engineers, pp.
	AQ	<u>49</u>	Weast, R.C. (480-485 (19		Ed.), Handbo	ook of	Mathematic	al Tab	oles, Secon	d Edition, Th	ne Chemical F	Rubber Co., pp.
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APPLICANT Sorrells et al.

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INFORMATION DISCLOSURE STATEMENT

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APPLICATION NO. 09/550,644

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